

CITY OF MISHAWAKA INDIANA



Americans with Disabilities Act Public Right-Of-Way Self-Evaluation and Transition Plan



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Prepared by:



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List of Abbreviations/Acronyms

AA – Affirmative Action
AASHTO – American Association of State Highway and Transportation Officials
ABA – Architectural Barriers Act of 1968
ADA – Americans with Disabilities Act of 1990
ADAAG – Americans with Disabilities Act Accessibility Guidelines
CFR – Code of Federal Regulations
DDRS – Indiana Division of Disability & Rehabilitative Services
DHHS – Deaf & Hard of Hearing Services, Indiana Division of Disability & Rehabilitative Services
DOJ – U.S. Department of Justice
DOT – U.S. Department of Transportation
EEOC – Equal Employment Opportunity Commission
FHWA – U.S. DOT Federal Highway Administration
FTA – U.S. DOT Federal Transit Administration
GIS – Geographic Information System
INDOT – Indiana Department of Transportation
ISA – International Symbol of Accessibility
NCA – National Center on Accessibility
OTRB – Over-the-Road Buses
PDF – Portable Document Format
PROWAG – Public Rights-of-Way Accessibility Guidelines
RA – Rehabilitation Act of 1973
ROW – Right-of-Way
SETP – Self-Evaluation and Transition Plan
SJCEMA – St. Joseph County Emergency Management Agency
UFAS – Uniform Federal Accessibility Standards

Executive Summary

The Americans with Disabilities Act (ADA) is a comprehensive Federal civil rights statute enacted in 1990. Comprised of five major parts, or “titles”, the ADA’s stated purpose was to provide a “clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities”. It is estimated by the U.S. Census Bureau that over 50 million U.S. residents have a disability, and over 50% of senior citizens age 65 or older have a disability. Title II requires that all public entities with 50 or more employees perform a self-evaluation, prepare a transition plan, make the transition plan available for three years, publish a notice of non-discrimination, designate an ADA Coordinator, and develop a formal complaint form and grievance procedure.

The City of Mishawaka has completed the self-evaluation of all City facilities outside of the public right-of-way (ROW) and programs, and prepared a Transition Plan that outlined the necessary steps to be fully compliant with the requirements of Title II of the ADA. This plan also addressed the existing City policies and procedures. This document was adopted by the City Common Council on April 2, 2012 and can be found by visiting <http://mishawaka.in.gov/adaplan>.

This self-evaluation and transition plan was developed in 2012 for City facilities within the public ROW. The City will strive to ensure that all residents and visitors have access to all services, programs and activities and will promptly investigate any formal grievance filed according to the grievance procedures outlined. Additionally, the City annually include budgetary amounts to complete required improvements that will eventually make the various facilities fully accessible, with emphasis given to the improvements that most impact the ability of persons with disabilities to access facilities or programs. Where access cannot be provided, alternate means to provide the same opportunities to persons with disabilities will be considered.

In order to perform this self-evaluation, the City of Mishawaka retained the consulting engineering firm of DLZ to perform an inventory and assessment of sidewalks and curb ramps within the City. With their assistance, a Traffic and Pedestrian Generator Map was generated to identify the nearly 241 miles of sidewalk and approximately 1,300 intersections with curb ramps. These pedestrian facilities were then inventoried and assessed using the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), dated July 26, 2011, as published by United States Access Board.

Following completion of the inventory and assessment, the transition plan outlined the findings and identified modifications required to the sidewalks and curb ramps to provide equal access for persons with disabilities. A statement of probable construction cost was prepared and included in the study report. The Transition Plan assigned priorities for modifications to the sidewalk and curb ramp facilities required to provide access to all users. The results of the self-evaluation identified a number of barriers within the City right-of-way. The degree to which these barriers limited accessibility and their priority for corrective action was subjectively categorized as “high”, “medium”, or “low”. “High” priority included barriers that effectively prohibited access to a service or program or present a safety hazard. “Medium” priority included barriers that either partially prohibited access or made it quite difficult. “Low” priority barriers typically do not limit access but are not compliant with standards. The total estimated cost to correct these deficiencies is \$22,693,357. The actual implementation schedule, budgeting, and prioritization is up to the administration and is likely to be impacted by complaints, new regulations and requirements, and availability of funding.

A draft Transition Plan was provided to the City and made available for public comment. A meeting of the Mishawaka Public Health and Safety Committee of the Common Council was held on February 12, 2013, to hear comments from the public on the draft Transition Plan. Following the comment period, the plan was updated and the Final Transition Plan was adopted by the City Common Council on March 4, 2013.

The City will strive to ensure that all pedestrians are able to access and use all pedestrian facilities in the ROW including sidewalks, curb ramps, traffic signals and street furniture. Due to the magnitude of estimated construction costs to modify these existing pedestrian facilities, it will be necessary for the city to make accessibility improvements on a yearly basis. Thus, rather than attempt to set a specific timeframe in which all improvements could be completed, the City proposes to include an amount ranging from \$250,000 - \$300,000 during the annual budget process. These funds will be dedicated to making improvements to pedestrian facilities located in high priority areas providing the greatest access benefit to buildings such as schools, government offices churches and other major public centers.

The number and size of these projects will largely be dependent on a number of economic factors and future changes to the ADA Accessibility Guidelines (ADAAG), the Proposed Accessibility Guidelines for Pedestrian Facilities within the Public Right of Way, or other unforeseen requirements that may necessitate additional improvements to City facilities.

Additionally, the City is committed to making all the pedestrian facilities within the public right-of-way compliant and will ensure that its Engineering Standard Construction Details are updated to be in compliance with the latest ADA requirements and the City will require that all future public works street construction projects are in compliance with ADA guidelines.

All improvements of pedestrian facilities completed will be documented annually on a sidewalk overlay within the city's GIS to enable a review of improved areas and to prioritize future work. The Transition Plan will be reviewed and updated periodically to ensure the City is continuing to improve the accessibility within their public right-of-way, and that it is current to properly serve areas of development.

1.0 Introduction and Overview

1.1 Introduction

The [Americans with Disabilities Act of 1990](#) (ADA), enacted on July 26, 1990, is a Federal civil rights statute, under the jurisdiction of the United States Department of Justice (DOJ), which provides civil rights protection to qualified individuals with disabilities in the areas of employment, public accommodations, state and local government services, transportation, and telecommunications. The law states its purpose is “to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities”. Similar protections are provided by [Section 504 of the Rehabilitation Act of 1973](#). The ADA was signed into law by President George Bush on July 26, 1990, extending civil rights protections to individuals with physical or mental disabilities in the following areas:

1. **Title I** – Employment (all Title II employers and employers with 15 or more employees)
2. **Title II** – Public Services (state and local government including public school districts and public transportation)
3. **Title III** – Public Accommodations and Services operated by Private Entities
4. **Title IV** – Telecommunications
5. **Title V** – Miscellaneous

The City of Mishawaka is classified as a “public entity” pursuant to Title II of the ADA. The City is also required to comply with Title I, which requires state and local government entities to practice nondiscrimination in all parts of the employment process.

The DOJ is the lead agency that oversees the ADA. The ADA in itself is not enforceable by any state or local governmental unit code official.

1.2 Purpose

The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the

executive departments and agencies of the Federal government. It is divided into 50 titles that represent broad areas subject to Federal regulation. Each volume of the CFR is updated once each calendar year and is issued on a quarterly basis.

Relative to the ADA on July 26, 1990, the DOJ issued rules implementing Title II, which is codified at [28 CFR Part 35](#), which applies to the City of Mishawaka. Title II requires state and local governments to make their programs and services accessible to persons with disabilities. This requirement extends not only to physical access at government facilities, programs, and events, but also to policy changes that state and local governmental entities must make to ensure that all people with disabilities can take part in, and benefit from, the programs and services of state and local governments.

The ADA regulations [ref. U.S. DOJ, [28 CFR Part 35, Subpart A, 35.105 and 35.150\(a\) and \(d\)](#)] require state and local governments to conduct a self-evaluation of their programs and services to identify barriers to access. One of the fundamental reasons for performing the self-evaluation is to identify potential problems before they occur, so that discrimination complaints won't be necessary. By identifying the policies, programs, services, and activities that do not comply, the City can take action to remove those barriers to ensure that the City is not discriminating against individuals with disabilities. Title II of the ADA stipulates that the City is required to perform six administrative responsibilities:

1. Publicize the name and contact information of the designated ADA Coordinator responsible to oversee compliance [\[28 CFR 35.107 \(a\)\]](#)
2. Administer and write self-evaluation of the programmatic barriers in services offered by the local government [\[28 CFR 35.105\]](#)
3. Publicize and inform applicants, participants, and beneficiaries of the City's policy of nondiscrimination on the basis of

- disability related to City services, programs, and activities [\[28 CFR 35.106\]](#)
4. Establish a complaint/grievance procedure to respond to complaints of noncompliance from the public [\[28 CFR 35.107 \(b\)\]](#)
 5. Develop a transition plan if structural changes are necessary for achieving program accessibility [\[28 CFR 35.150 \(a\) and \(d\)\]](#)
 6. Retain the self-evaluation and provide it for public inspection for three years [\[28 CFR 35.105 \(c\)\]](#)

The City of Mishawaka is committed to complying with the regulations of Title II of the ADA of 1990, and other Federal and State statutes and regulations intended to make City-owned and operated facilities, programs, services, and activities accessible to persons with disabilities. This ADA Self-Evaluation and Transition Plan (SETP) establishes a new benchmark for compliance with ADA and identifies a plan to remove barriers.

1.3 Transition Plan Overview

In 2010, the City of Mishawaka was made aware of issues related to non-compliance with certain requirements of the ADA by the Federal Highway Administration (FHWA) following their inspection of a Federal aid project. FHWA, one of a number of Federal agencies with ADA responsibilities, found that the City did not have a SETP in place that included an evaluation of all City facilities, programs, policies, services, and activities. The City responded by contracting DLZ Indiana, LLC to assist in preparing a SETP.

The City chose to address the task in two phases. The first phase assessed City-owned and operated facilities, programs, policies, services, and activities for compliance with ADA was initiated to complete the ADA SETP. This work plan included:

- Facility audit (interior and exterior)
- Self-evaluation of City programs, services and activities
- Facilitate designating an ADA Coordinator
- Develop grievance procedures

- Outreach to advocacy groups and the general public
- Prioritize facilities improvements for accessibility
- Develop written transition plan
- Adoption of the transition plan

Following adoption of the first phase of the City's SETP in April 2012, DLZ began work on the subsequent phase to address accessibility of pedestrian facilities within the public right of way. This work plan included:

- Self-evaluation of the public ROW including sidewalks, curb ramps, site furnishings, accessible signals and on-street parking
- Outreach to advocacy groups and the general public
- Prioritize ROW improvements for accessibility
- Develop written transition plan
- Adoption of the transition plan

While the self-evaluation was on-going, the City has continued its standing policy on improving sidewalks and curb ramps within the ROW to be ADA-compliant as part of public works infrastructure improvement projects. A number of roadway and underground infrastructure projects have been constructed and all have made improvements to accessibility. A public involvement process was incorporated to assist in the development of this SETP. These recommendations are intended to serve as the transition plan and framework for implementation. All of the recommendations in this plan for solutions to facilitate access to all individuals are subject to review, revision, and approval of the City Common Council and appropriation of funding to implement the improvements.

This transition plan is an on-going, dynamic document that will need periodic review and updating. In particular, additional evaluations will be required when updates are made to the ADA or supporting statutes or when existing accessibility guidelines change or new guidelines are established. In its efforts to maintain compliance, the City has several

mechanisms in place to provide for an ongoing update of the transition plan:

- Designated ADA Coordinator is empowered with oversight responsibility for implementation of the requirements of the ADA.
- Implementation activities will be part of the City's annual Capital Improvement Plan.
- Training of staff.

1.4 Legislative Background & Framework

For more than 40 years, the City of Mishawaka has been subject to many of the non-discrimination provisions contained in the ADA. Significant precursory legislation to the ADA includes the [Architectural Barriers Act of 1968](#) (ABA) and [Section 504 of the Rehabilitation Act of 1973](#) (RA).

Congress' first significant effort to address discrimination on the basis of disability was its enactment of the ABA, which provided that all buildings constructed, altered, leased, or financed by the U.S. Government shall be accessible to, and usable by, individuals with physical disabilities.

Section 504 of the Rehabilitation Act states: *"No otherwise qualified individual with a disability in the United States shall, solely by reason of his disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive Agency"*. It also requires Federal agencies to provide accessible programs and facilities.

The ADA was modeled on Section 504. The ADA applies to state and local government entities, public accommodations, public transportation, and commercial establishments. The key points of understanding for ADA are:

- The ADA is fundamentally civil rights legislation. This legislation protects the rights of people with disabilities in

employment, transportation, public accommodation, and access to services offered by the public.

- The ADA addresses facility access and access to programs and services. Buildings are required to be accessible and the activities that are offered inside and outside those buildings also must be accessible.
- Outdoor recreation standards as it relates to ADA have not been finalized, though guidance is pending for a number of situations. Standards for outdoor recreation (i.e. boating and fishing facilities, swimming pools, stadiums, etc.) are being established and only guidelines exist currently. (NOTE: New standards were published and formally adopted that went into effect in March 2011 that included provisions for some recreational facilities.)

The primary focus of this report is to assess the compliance of the City of Mishawaka's Public Right-of-Way related to Title II of the ADA. Title II of the ADA was effective on January 26, 1992.

Governmental entities must ensure effective communication, including the provision of necessary auxiliary aids and services, so that individuals with disabilities can participate in civic functions. Public entities are not required to take actions that would result in undue financial and administrative burdens. However, they are required to make reasonable modifications to policies, practices, and procedures where necessary to avoid discrimination, unless they can demonstrate that doing so would fundamentally alter the nature of the service, program, or activity being provided.

One important way to ensure that Title II's requirements are being met in cities of all sizes is through self-evaluation, which is required by the ADA regulations. Self-evaluation enables local governments to pinpoint the facilities, programs and services that must be modified or relocated to ensure that local governments are complying with Title II requirements of the ADA. A public entity that employs 50 or more

employees must retain its self-evaluation for a minimum of three (3) years.

1.5 ADA Self-Evaluation and Transition Plan Requirements

The purpose of this ADA SETP is to document the City's review of access to public ROW facilities by individuals with disabilities.

At a minimum, the elements of the transition plan are:

- 1) A list of the physical barriers in the City's facilities that limit the accessibility of its programs, activities, or services to individuals with disabilities. [\[28 CFR 35.150 \(d\)\(3\)\(i\)\]](#)
- 2) A detailed outline of the methods to be utilized to remove these barriers and make the facilities accessible. [\[28 CFR 35.150 \(d\)\(3\)\(ii\)\]](#)
- 3) The schedule for taking the necessary steps to achieve compliance with Title II of the ADA. If the time period for achieving compliance is longer than one year, the plan should identify the interim steps that will be taken during each year of the transition period. [\[28 CFR 35.150 \(d\)\(3\)\(iii\)\]](#)
- 4) The name of the official responsible for the plan's implementation. [\[28 CFR 35.150 \(d\)\(3\)\(iv\)\]](#)

Items 1-3, in relation to the public Right-Of-Way, will be addressed in this Transition Plan. Item 4 was addressed in the first phase of the SETP (April 2012).

1.6 Pedestrian ROW Facility Audit

In the summer of 2012, audits of the public ROW were performed by DLZ staff. This review identified physical barriers and provided recommendations to comply with Federal accessibility requirements.

The list of facilities that received an accessibility audit included:

- Sidewalks: Approx. 241 miles

- Curb Ramps: Approx 1,300 intersections yielding over 2,800 curb ramps, specifically excluding any other state routes, including Lincolnway (SR933) SR 23, Indiana Toll Road (80/90), SR3311, and the US20 Bypass (St. Joseph Valley Parkway).
- Accessible Pedestrian Signals where present
- On-Street Parking (those spaces which are marked or metered)
- Site Furnishings (tables, benches, trash receptacles, excluding those owned by other Title II entities such as South Bend Public Transportation Corporation (TRANSPO)).

Photographs of all amenities were taken for the record but are not included in this report. The specific ROW improvements recommended to remove barriers and improve accessibility are listed in *Appendix A through Appendix C*.

1.7 Public Outreach

Public outreach began during the first phase of the SETP by sponsoring two public meetings in October 2011 and March 2012 to educate the public on the requirements of the ADA, to introduce the project goals and objectives, and to take comment on the Facilities draft.

For the purposes of the Public Right-Of-Way evaluations/transition plan, meetings were limited to public review and comment on the draft Public Right-Of-Way SETP. This meeting was held on February 12, 2013, at a meeting of the Mishawaka Public Health and Safety Committee of the Common Council. Meeting information presented and comments/responses can be found in *Appendix E – Public Outreach*. These public comments should be considered in future planning corrections for City projects related to the removal of barriers within the Public ROW.

1.8 Public Right-Of-Way Related City Administration and Departments

Within the City of Mishawaka governmental structure, there are approximately 13 departments that provide City services,

programs, and activities. Of these 13 departments, the 7 departments with the most involvement in the public right-of-way and descriptions of their functions are:

1. Central Services (Street) Department

The Central Services Department is responsible for the maintenance and upkeep of all City and Mishawaka Utility owned property, including facilities, buildings, grounds, vehicle maintenance, and alley and street maintenance. The department is also responsible for all signage for traffic control, snow removal, pavement markings, street sweeping and leaf pick-up, and staffing for the Mishawaka Environmental Center.

Specific Departmental Contribution to Accessibility within the public Right-of-Way

- Ongoing maintenance of public right-of-way Improvements
- Seasonal maintenance activities

2. Engineering Department

The Engineering Department is responsible for planning, designing, bidding, funding, and the construction management for all Public Works projects within the City of Mishawaka. Responsibilities also include review of all private development and utility company projects for conformance with Engineering Standards including storm water management, sanitary sewer construction and connection, and right-of-way access and improvements.

This office also manages the traffic signal system, traffic cameras, right-of-way records and as-built records for locating right-of-way infrastructure such as the City fiber-optic system, and the storm and sanitary sewer systems. The department also assists Central Services with planning street maintenance, as well as administering the sewer insurance program, curb and sidewalk replacement program, alley paving, and disabled parking space requests.

Specific Departmental Contribution to Accessibility within the public Right-of-Way

- Plan review of all City projects and infrastructure improvements for accessibility compliance
- Maintaining Engineering Standards for development within the City of Mishawaka, including specific requirements related to accessibility
- Incorporating accessibility related improvements, such as sidewalk and curb ramps into all infrastructure projects where applicable
- Disabled Parking Space Requests for on street parking

3. Department of Planning and Development

The Department of Planning and Development (Planning along with Community Development) works with a wide range of citizens, from neighborhood leaders to builders and businesses, and has recently joined with the Building Department to improve efficiency. The department issues and tracks building permits, inspects construction projects, annually inspects adult care homes, performs land use and comprehensive planning, coordinates project development, administers the zoning ordinance, provides staff to the Plan Commission, Board of Zoning Appeals, and Historic Preservation Commission, issues permits for construction/modification of various structures, and administers the Community Development Block Grant (CDBG) and Home Investment Partnership (HOME) grant.

Specific Departmental Contribution to Accessibility within the public Right-of-Way

- Including accessibility in zoning and permit submittal review
- Including accessibility in construction inspections

4. Code Enforcement Department

The Code Enforcement Department is charged with the duty of ensuring compliance with City ordinances. The Department works hand in hand with residents on a daily basis to maintain City neighborhoods and to improve the quality of life that citizens expect and enjoy. Duties include taking complaints and following up on

them, making inspections, enforcing housing codes, and maintenance of rental property smoke detector renewal and substandard structures. The code enforcement officers work with property owners commonly on voluntary compliance to address abandoned autos, tall grass, animal issues, snow removal, noise complaints, and trash.

Specific Departmental Contribution to Accessibility within the public Right-of-Way

- Enforcing City codes regarding snow removal policies to increase accessibility of sidewalks during weather events

5. Police Department

The Mishawaka Police Department is a full-service, 24-hour operational department entrusted with the safety and general welfare of the residents of Mishawaka. The Mishawaka Police Department (MPD) strives to provide an open line of communication between citizens and police officers to take an active role in community programs and neighborhoods and to be a service-oriented police department.

Specific Departmental Contribution to Accessibility within the public Right-of-Way

- Enforcement of disabled parking use within the City

6. Human Resources Department

The City of Mishawaka has designated the Human Resources Director as its ADA Coordinator. The ADA Coordinator will delegate the responsibility of preparing an initial investigation and response to departmental management staff members. The ADA Coordinator is responsible for coordinating the

efforts of the City to comply with Title II and for investigating any complaints that the City has violated Title II of the ADA. The Coordinator is also responsible for coordinating the efforts of the City to comply and all other applicable state and Federal physical and program accessibility requirements. Additional information regarding the City's established procedures for receiving and addressing complaints, questions, or concerns may be found on the City's website at www.Mishawaka.in.gov

Specific Departmental Contribution to Accessibility within the public Right-of-Way

- Houses ADA Coordinator position, including the responsibility of tracking accessibility related infrastructure improvements and complaints within the public right-of-way

7. Fire Department

The primary responsibilities of the Fire Department and EMS lie in the areas of: fire suppression, fire prevention, fire investigation, emergency medical, hazardous materials, education, water rescue and confined space rescue. In addition to their other duties, Mishawaka firefighters continue an intensive fire prevention and fire safety education program. Over half of the City's firefighters are cross-trained as emergency medical technicians

Specific Departmental Contribution to Accessibility within the public Right-of-Way

- Emergency response within the City, including traffic-related emergencies within the public right-of-way

2.0 Definitions

The words, phrases and definitions summarized below are included in the ADA. Refer to the ADA 28 CFR 35.104 for full definitions. A list of common terms and definitions are included below.

2010 Standards: the 2010 ADA Standards for Accessible Design (ADAAG), which consist of the 2004 ADAAG and requirements contained in 35.151.

Access Board: an independent Federal agency devoted to accessibility for people with disabilities. The [Access Board](#) developed the accessibility guidelines for the ADA and provides technical assistance and training on these guidelines.

Accessible: refers to a site, facility, work environment, service, or program that is easy to approach, enter, operate, participate in, and/or use safely and with dignity by a person with a disability.

Affirmative Action (AA): a set of positive steps that employers use to promote equal employment opportunity and to eliminate discrimination. It includes expanded outreach, recruitment, mentoring, training, management development and other programs designed to help employers hire, retain and advance qualified workers from diverse backgrounds, including persons with disabilities. Affirmative action means inclusion, not exclusion. Affirmative action does not mean quotas and is not mandated by the ADA.

Alteration: A change to a facility in the public right-of-way that affects or could affect pedestrian access, circulation, or use. Alterations include, but are not limited to, resurfacing, rehabilitation, reconstruction, historic restoration, or changes or rearrangement of structural parts or elements of a facility.

Americans with Disabilities Act (ADA): a comprehensive, Federal civil rights law that

prohibits discrimination against people with disabilities in employment, state and local government programs and activities, public accommodations, transportation, and telecommunications.

ADA Accessibility Guidelines (ADAAG): scoping and technical requirements to be applied during the design, construction, and alteration of buildings and facilities covered by titles II and III of the ADA to the extent required by regulations issued by Federal agencies, including the DOJ and the Department of Transportation (DOT).

Blended Transition: A raised pedestrian street crossing, depressed corner, or similar connection between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that has a grade of 5 percent or less.

Civil Rights Act of 1991: Federal law that capped compensatory and punitive damages under Title I of the ADA for intentional job discrimination. The law also amended the ADA's definition of an employee, adding "with respect to employment in a foreign country, such term includes an individual who is a citizen of the United States."

Complaint: a written statement, alleging violation of the ADA, which contains the complainant's name and address and describes the City's alleged discriminatory action in sufficient detail to inform them of the nature and date of the alleged violation. It shall be signed by the complainant or by someone authorized to do so on his or her behalf. Complaints filed on behalf of classes or third parties shall describe or identify (by name, if possible) the alleged victims of discrimination.

Covered Entity: under the ADA, "covered entity" is an entity that must comply with the law. Under Title II, covered entities include state and local government instrumentalities, the National Railroad Passenger Corporation,

and other commuter authorities, and public transportation systems.

Cross Slope: The grade that is perpendicular to the direction of pedestrian travel.

Curb Line: A line at the face of the curb that marks the transition between the curb and the gutter, street, or highway.

Curb Ramp: A ramp that cuts through or is built up to the curb. Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.

Direct Threat: a significant risk to the health or safety of others that cannot be eliminated by reasonable accommodation.

Disability: with respect to an individual, means: a physical or mental impairment that substantially limits one or more of the major life activities of such individual; a record of such an impairment; or being regarded as having such an impairment.

Discrimination on the basis of disability: means to:

- Limit, segregate, or classify a citizen in a way that may adversely affect opportunities or status because of the person's disability;
- Limit, segregate, or classify a participant in a program or activity offered to the public in a way that may adversely affect opportunities or status because of the participant's disability;
- Participate in a contract that could subject a qualified citizen with a disability to discrimination;
- Use any standards, criteria, or methods of administration that have the effect of discriminating on the basis of disability;
- Deny equal benefits because of a disability;
- Fail to make reasonable accommodations to known physical or mental limitations of an otherwise qualified individual unless it can be shown that the accommodation would impose an undue burden on the City's operations;
- Use selection criteria that exclude otherwise qualified people with disabilities from

participating in the programs or activities offered to the public; and

- Fail to use tests, including eligibility tests, in a manner that ensures that the test results accurately reflect the qualified applicant's skills or aptitude to participate in a program or activity.

Facility: All or any portion of buildings, structures, improvements, elements, and pedestrian or vehicular routes located in the public right-of-way.

Grade Break: The line where two surface planes with different grades meet.

Major Life Activity: term used in the ADA definition of disability. It refers to activities that an average person can perform with little or no difficulty, such as walking, seeing, speaking, hearing, breathing, learning, performing manual tasks, caring for oneself, and working. These are examples only. Other activities such as sitting, standing, lifting, or reading are also major life activities.

Pedestrian Access Route: A continuous and unobstructed path of travel provided for pedestrians with disabilities within or coinciding with a pedestrian circulation path.

Pedestrian Circulation Path: A prepared exterior or interior surface provided for pedestrian travel in the public right-of-way.

Physical or Mental Impairment: a physical or mental limitation that may include, but are not limited to: vision, speech, and hearing impairment; emotional disturbance and mental illness; seizure disorders; mental retardation; orthopedic and neuromotor disabilities; learning disabilities; diabetes; heart disease; nervous conditions; cancer; asthma; hepatitis B; HIV infection (HIV condition); and drug addiction if the addict has successfully completed or is participating in a rehabilitation program and no longer uses illegal drugs.

The following conditions are not physical or mental impairments: tranvestism, illegal drug use; homosexuality or bisexuality; compulsive

gambling; kleptomania; pyromania; pedophilia; exhibitionism; voyeurism; pregnancy; height; weight; eye color; hair color; left-handedness; poverty; lack of education; a prison record; and poor judgment or quick temper if not symptoms of a mental or physiological disorder.

Public Entity: entities that must comply with Title II. The term is defined as: any state or local government; any department, agency, special purpose district, or other instrumentality of a state or local government; or certain commuter authorities as well as Amtrak. It does not include the Federal government.

PROWAG: Proposed Accessibility Guidelines for Pedestrian Facilities within Public Right of Way - These proposed guidelines for provide design criteria for public streets and sidewalks, including pedestrian access routes, street crossings, curb ramps and blended transitions, on-street parking, street furniture, and other elements. The specifications comprehensively address access that accommodates all types of disabilities, including mobility and vision impairments, while taking into account conditions and constraints that may impact compliance, such as space limitations and terrain.

Readily Achievable: easily accomplishable and able to be carried out without much difficulty or expense. In determining whether an action is readily achievable, factors to be considered include nature and cost of the action, overall financial resources and the effect on expenses and resources, legitimate safety requirements, impact on the operation of a site, and, if applicable, overall financial resources, size, and type of operation of any parent corporation or entity.

Reasonable Program Modifications: if an individual's disabilities prevent them from performing the essential functions of the program or activity, it is necessary to determine whether reasonable program

modifications would enable these individuals to perform the essential functions of the program or activity.

Reasonable program modification is any change in a program or activity, or in the way things are customarily done, that enables an individual with a disability to enjoy equal program opportunities. Accommodation means modifications or adjustments:

- To a registration or application process to enable an individual with a disability to be considered for the program or activity;
- To the program or activity environment in which the duties of a position are performed so that a person with a disability can perform the essential functions of the program or activity; and
- That enables individuals with disabilities to enjoy equally the benefits of the program or activity as other similarly situated individuals without disabilities enjoy.

Modification includes making existing facilities and equipment used by individuals readily accessible and usable by individuals with disabilities. Modification applies to known disabilities only. Modification is not required if it changes the essential nature of a program or activity for the person with a disability, it creates a hazardous situation, adjustments or modifications requested are primarily for the personal benefit of the individual with a disability, or it poses an undue burden on the City.

Running Slope: The grade that is parallel to the direction of pedestrian travel.

Service Animal: any dog that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including physical, sensory, psychiatric, intellectual, or other mental disability. Other species of animals, whether wild or domestic, trained or untrained, are not service animals for the purposes of this definition.

Substantial Limitation on Major Life Activities: An individual is disabled if she or

he has a physical or mental impairment that (a) renders her or him unable to perform a major life activity, or (b) substantially limits the condition, manner, or duration under which she or he can perform a particular major life activity in comparison to other people.

In determining whether physical or mental impairment substantially limits the condition, manner, or duration under which an individual can perform a particular major life activity in comparison to other people, the following factors shall be considered:

- The nature and severity of the impairment;
- The duration or expected duration of the impairment; and
- The permanent or long term impact (or expected impact) of, or resulting from, the impairment.

Title V of the Rehabilitation Act of 1973: title of the law that prohibits discrimination on the basis of a disability by the Federal government, Federal contractors, by recipients of Federal financial assistance, and in Federally conducted programs and activities.

Transition Plan: refers to a requirement that state and local governments employing 50 or more people develop plans detailing structural changes necessary to achieve facility and program accessibility.

Undue Burden: means significant difficulty or expense incurred in the provision of accommodation. Undue burden includes, but is not limited to, financial difficulty. Undue burden refers to any modification that would be unduly costly, extensive, substantial, or disruptive, or that would fundamentally alter the nature of operation of the business of the City. Whether a particular accommodation will impose an undue hardship is determined on a case-by-case basis. If a particular modification is determined to cause an undue

burden to the City of Mishawaka, the City shall attempt to identify another modification that would not pose such a burden. If cost causes the undue burden, the City must consider whether funding for the modification is available from an outside source. If no such funding is available, the City must give the person with a disability the opportunity to provide the modification or to pay for that portion of the modification that constitutes an undue burden.

Undue Hardship: with respect to the provision of an accommodation under Title I of the ADA, significant difficulty or expense incurred by a covered entity, when considered in light of certain factors. These factors include the nature and cost of the accommodation in relationship to the size, resources, nature, and structure of the employer's operation. Where the facility making the accommodation is part of a larger entity, the structure and overall resources of the larger organization would be considered, as well as the financial and administrative relationship of the facility to the larger organization. Employers do not have to provide accommodations that cause an undue hardship.

U.S. Department of Justice: Federal agency that is responsible for enforcing Titles II and III of the ADA.

U.S. Department of Transportation: Federal agency that enforces nondiscrimination in public and private transportation. Nondiscrimination includes access to public bus, train and paratransit, as well as privately operated bus and shuttle transportation. The ADA does not cover air transportation, which is subject to the Air Carrier Access Act.

Vertical Surface Discontinuities: Vertical differences in level between two adjacent surfaces.

3.0 Self-Evaluation of Pedestrian Facilities with the Public Right-Of-Way – Project Approach

This segment of the self-evaluation plan summarizes the review of current City ROW facilities. The findings and recommendations contained in this segment will provide the basis for the implementation of specific improvements for providing access to City programs.

3.1 Data Collection and Methodology

The self-evaluation of the City's Public ROW began with the compilation of a Traffic and Pedestrian Generator Map to identify the nearly 241 miles of sidewalk and approximately 1,300 intersections with curb ramps within the city limits. This map was generated based on the available information through the City GIS and Google Maps and is included in *Appendix D – Mapping Tools*.

These pedestrian facilities were then inventoried and assessed using the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), dated July 26, 2011, as published by United States Access Board. Data collection was completed using Apple iPads and software to record the location of each data collection point, the numerical data, and to correlate the data with a photo of the facility inventoried.

The GeoJot application by GeoSpatial Experts was used for data collection. The GeoJot application provided a platform for the creation of ADA specific attribute lists to track inventory data. The GPS Photo Link with GIS Series was used in conjunction with GeoJot to allow future incorporation with the City's Geographic Information Systems (GIS) Database.

3.2 Database Analysis

Upon completion of the Inventory and Assessment, the data collected was compiled into data sheets for each data collection point or location. Throughout the SETP, 'location' refers to a single data collection point. This may be a City block, a portion thereof with logical

stopping point, such as an alley or area with no sidewalk present, curb ramp, intersection or non-roadway related portion of public ROW. Each location was reviewed for compliance with each criterion required within the PROWAG (or ADAAG as applicable). A barrier ranking (High, Medium, or Low priority) was assigned to the location per Section 3.3 Barrier Ranking. Each location was then assigned a cost parameter based on the amount of modification or reconstruction required to achieve accessibility.

3.3 Barrier Ranking

The City's self-evaluation of the Public ROW takes into account factors such as level of use, degree of danger posed, complaints or requests for repair received, and other factors.

These factors can be grouped into two categories. **Contributing contextual factors** account for use patterns and distribution in relation to city services, residential zones, and public services. **Physical Impedance factors** include the actual physical characteristics of the specific right-of-way feature and the severity of the barrier to use.

Contributing Contextual Factors:

Areas of High Pedestrian Activity – High priority areas include areas with high levels of pedestrian traffic. These included, but are not limited to, those areas adjacent to Downtown, schools, community centers, churches, public transportation hubs, retail centers, and parks.

Areas with a Higher Concentration of persons with disabilities – High priority areas include senior centers, assisted living communities, and areas adjacent to medical facilities.

Areas of High Volume Streets – High priority areas include the pedestrian facilities along major arterial streets. These are frequently the connectors between residential areas and

destinations such as shopping centers, employment, and medical centers. See also

standard elements such as detectable warnings not in compliance with guidelines.

Areas accessing Places of Public Accommodation – High priority areas include those pedestrian facilities serving local government offices and facilities, such as City Hall, public libraries, and community centers.

Physical Impedance Factors:

- **Hazardous** – High priority areas include areas with generally hazardous conditions to any pedestrian. These included, but are not limited to, trip hazards, extreme slopes, and major obstructions and protrusions.
- **High priority** - High priority areas include areas with conditions that make travel difficult or impossible for the independent pedestrian and affect the ability of persons with disabilities to access or use a facility or program. These included, but are not limited to, missing curb ramps, steep slopes, particularly cross slopes impacting lateral balance, changes in level over 1", and fixed obstructions limiting vertical and horizontal clearance.
- **Medium priority** – Medium priority areas include areas with conditions that make travel moderately difficult, but passable and affect the quality of usage for persons with disabilities to a greater extent than that afforded the non-disabled. These included, but are not limited to, moderate deviations in running and cross slopes, changes in level ½" to 1", obstructions that allow tight passage, landing and PAR width deviations.
- **Low priority** – Low priority areas include areas with conditions that deviate from codes and standards but alternative means of use may be available to provide equal access or opportunities. In low priority areas, conditions may be an inconvenience, but neither travel nor safety is greatly impacted. These areas allow significant usability and independent travel is possible in most cases. These included, but are not limited to, minor deviations in running and cross slopes, changes in level, landings and PAR width deviations, and presence of

3.4 Contributing Contextual Analysis

The self-evaluation of the City's ROW included identification of contributing contextual factors for use in barrier ranking. These factors are NOT included in the priorities given in the Appendices. These factors will be analyzed on a yearly basis as the City identifies the work scope for that year's improvements. Locations of City and other governmental facilities, commercial centers, and densities of residential development may change over time, and should be reevaluated to accommodate the current greatest need for improvements at time of implementation.

3.5 Public Involvement

In the previous phase, the public had opportunity for education on the purpose and nature of the SETP process via public meeting. The public ROW included a dual purpose meeting. The draft of the ROW SETP was made available two weeks prior to the public meeting so that the public had opportunity not only to provide input and comment on the plan, but to also note any particular areas of concern within the City, and share their opinions regarding priority, City action, and future improvements. Documentation related to the public meeting, included correspondence and comment summary are included in *Appendix E – Public Outreach*.

3.6 GIS Database Implications

The City of Mishawaka's Information Technology department manages the City's Geographical Information Systems (GIS). The GIS is focused on the development of a common electronic base map containing high-resolution aerial photography and data layers showing the geographical location of infrastructure and related information. The data collected during the self evaluation will be used to add pedestrian information to the City's GIS database, increasing access and information available to the City's various departments.

4.0 Self-Evaluation of Pedestrian Facilities with the Public Right-Of-Way – Sidewalk Inventory

This segment of the self-evaluation plan summarizes the review of current sidewalks within the public ROW. The findings and recommendations contained in this segment will provide the basis for the implementation of specific improvements to accessibility on City sidewalks.

4.1 Pedestrian Access Route

Per R204 of the PROWAG, ‘a pedestrian access route is a continuous and unobstructed path of travel provided for pedestrians with disabilities within or coinciding with a pedestrian circulation path in the public Right of Way. Pedestrian Access Routes in the public Right of Way ensure that the transportation network used by pedestrians is accessible to pedestrians with disabilities....Pedestrian access routes must be provided within sidewalks, and other pedestrian circulation paths located in the public right-of-way; pedestrian street crossings, and at-grade rail crossings, including median and refuge islands; and overpasses, underpasses, bridges and similar structures that contain pedestrian circulation paths.’ In addition to defining the Pedestrian Access Route (PAR), this definition also provides guidance on determining the scope of areas to be evaluated for compliance.

Per the Technical provisions of the PROWAG, the sidewalk PAR must meet the following general criteria:

- R302.3 Continuous Width
- R302.4 Passing Spaces
- R302.5 Grade (Running Slope)
- R302.6 Cross Slope
- R302.7 Surfaces

Within the following text, ‘location’ refers to a single data collection point. This may be a City block, a portion thereof with logical stopping point, such as an alley or area with no sidewalk present, or non-roadway related portion of public ROW. Percentages and numbers shown

should not be interpreted as a quantity of infrastructure. Likewise, compliance for one criterion does not indicate compliance in for all criteria.

4.2 Width

Requirements:

Per R302.3, the continuous clear width shall be 4’ minimum exclusive of the width of curb. Five feet of width is preferred, as when the clear width is less than 5’, passing spaces must be provided every 200’ maximum. This provides greater flexibility to the pedestrian to accommodate changes in direction, passing movements, and turning space. See also Section 4.6 – Obstructions and Protrusions.

Self Evaluation Findings:

Within the City, approximately 265 locations out of 2925 surveyed were less than 48” in width. Approximately 90% of locations were found to have continuous clear width of 48” or greater.



Photo: Example of 5’ sidewalk width (W. Eleventh Street between Wells and West St.)

Addressing the Issue:

Where ROW is available, sidewalk width can be corrected by widening the sidewalk to at least the minimum requirement.

To address future construction, City Code of ordinances, Sec. 54-119, states sidewalks constructed within the corporate limits of the City *'shall be four feet, eight inches and when the walk and curb are together, the width shall be five feet, two inches.'* All plans require review by the Engineering Department.

4.3 Grade (Running Slope)

Requirements:

Per R302.5, the grade (running slope) of the sidewalk PAR shall not exceed the grade of the adjacent street. Otherwise, a 5% maximum is imposed.

Self Evaluation Findings:

Within the City, only 118 locations (approximately 4%) were over the 5% maximum running slope. Approximately 95% of locations evaluated were found to be less than 5% running slope.

Addressing the Issue:

For running slopes of over 5% (**where not adjacent to roadways exceeding that**), potential solutions may include:

- Lowering grade.
- Removing and regrading adjacent shallowly sloped panels to spread the slope over a greater run and achieve a more even, compliant slope throughout.
- Installation of handrail and landings per PROWAG requirements for areas between 5% and 8.33%, where a more cost effective measure cannot be implemented due to grade, right-of-way, or adjacent fronting buildings.

4.4 Cross Slope

Requirements:

Per R302.6, the cross slope of the sidewalk PAR shall be 2% maximum. Exceptions to this rule occur only at pedestrian street crossings without yield or stop control or midblock crossings and will be discussed in Section 5 - Crosswalks.

Self Evaluation Findings:

In surveying the cross slope of the sidewalks, the following classifications were found:

- Approx. 17% of locations – all sidewalk panels had cross slopes over 2% maximum.
- Approx. 5% of locations – Half of the sidewalk panels had cross slopes over 2% maximum.
- Approx. 16% of locations – Sidewalk panels exhibited variations in cross slope in excess of 4% leading to a higher priority ranking.
- Approx. 21% of locations – Sidewalk panels exhibited variations in cross slope up to 3.9%.



Example of Cross Slope Data Collection

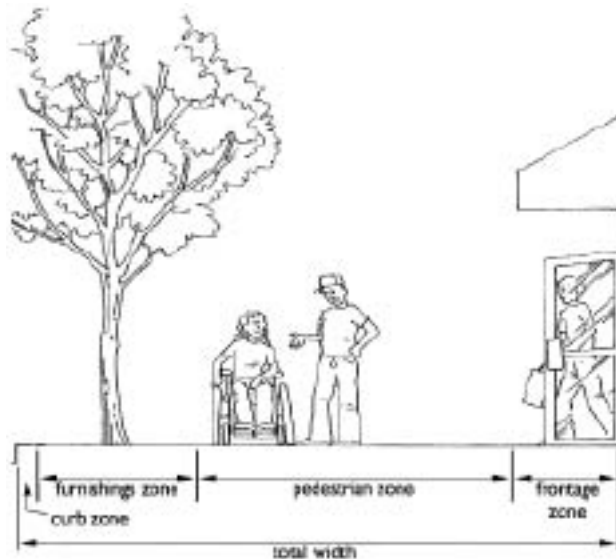
Addressing the Issue:

For cross slopes of over 2%, potential solutions may include:

- Lowering grade.
- Removing and regrading adjacent tree lawn to achieve a compliant slope throughout.
- Providing a compliant cross slope area at required clear width to accommodate PAR and creating steeper transitional area between PAR and curb. Often referred to as the furnishings zone (See illustration).
- Installation of curb or retaining walls in areas where grading cannot be implemented due to right-of-way, or adjacent fronting buildings.

This illustration from the FHWA publication "Designing Sidewalks and Trails for Access" shows the divisions of sidewalk width by function—furnishings zone, pedestrian zone, and frontage zone. Understanding these zones

and the role of the Pedestrian Access route may be useful in developing solutions to cross slope issues in downtown areas.



4.5 Changes in Level / Surface Condition

Requirements:

Per R302.7, the surface of the PAR shall be firm, stable, and slip-resistant. Grade breaks shall be flush. Vertical surface discontinuities (changes in level) shall be $\frac{1}{2}$ " maximum with those between $\frac{1}{4}$ " and $\frac{1}{2}$ " being beveled at slope not steeper than 50% across the entire discontinuity. Horizontal openings such as grates and joints may not exceed $\frac{1}{2}$ ". Elongated openings should be placed perpendicular to dominant direction of travel.

Self Evaluation Findings:

During the evaluation, surface condition was evaluated for damage from cracking and spalling. Surface condition presented as follows:

- 41 locations - Over 50% damaged (Approx. 1%)
- 997 locations – 10%-50% damaged (Approx. 34%)
- 1464 locations – Less than 10% damaged (Approx. 50%)

- 423 locations – No observable surface damage (Approx. 15%)

Within the City, the following surface discontinuities were observed:

- Approx. 22% of locations with $\frac{1}{4}$ " to $\frac{1}{2}$ "
- Approx. 2% of locations with $\frac{1}{2}$ " to 1"
- Approx. 10% of locations with over 1"
- Approx. 66% of locations with no observed discontinuity



Examples of changes in level observed within the City include settling, heaving due to frost, and displacement from adjacent tree growth. (East of Victoria St. and Lincolnway East Intersection)

Addressing the Issue:

Changes in level and surface condition are a common problem as infrastructure ages. Temporary fixes of high hazard areas can be implemented to promote the safety of all users while long-term solutions are set into action. Public input is particularly important in locating hazardous areas as they occur. In general, the following solutions can address changes in level and surface condition.

Level Changes

- Temporary placement of concrete or asphalt to ramp from adjacent panel
- Grinding edge at surface changes of up to $\frac{1}{2}$ " to achieve allowable bevel
- Replacement of concrete sidewalk panel

- Where right-of-way is available, route sidewalk around large trees to avoid further heaving

Surface Condition

- Replacement of damaged concrete sidewalk panel
- If asphalt surface such as multi-use trail, mill and overlay with new surface
- Maintenance to keep free of vegetation and debris

4.6 Obstructions, Protrusions and Utility Considerations

Requirements:

Per R402.2, protruding objects are those objects with leading edges more than 27" and not more than 80" above the finish surface which protrude more than 4" horizontally into pedestrian circulation paths.

Per R210, street furniture and other objects may not reduce the minimum clear width of the PAR. These items would be considered an obstruction of the continuous clear width provided.

Self Evaluation Findings:

Obstructions observed in the City include light and utility poles, newspaper and mail boxes, and site furnishings.

- 1 fence obstruction
- 366 vegetative protrusions or obstructions
- 110 vertical protrusions or obstructions including, but not limited to, signage, utility poles, fire hydrants, mailboxes and guardrails.
- 106 ground plane utility conflicts, including, but not limited to, manholes, valve covers, open grate castings, and access boxes. These conflicts were generally classified as vertical displacements and slip hazards.



Example of Utility Obstruction narrowing sidewalk width to under 48" minimum required (E. 3rd St. between Home St. and Alford St.)



Example of Railroad signage as protruding object within the pedestrian circulation area (Division St. between Marion St. and railroad tracks)



Photo: Example of ground plane utility conflicts as displacement and slip/trip hazard (Union St. between 11th and 12th St.)

Addressing the Issue:

Moveable obstructions may include furniture, signage, parked cars, and even trash collection bins. These items may be addressed by enactment and/or enforcement of ordinances regarding their placement. Implementation of an ordinance restricting parking within public sidewalks may help prevent parking obstructions, particularly in residential areas. Similar restrictions on location of trash bins for pickup could be developed. Moveable signage could be added to the City's Sign Standards section of the municipal code to regulate location and clear space requirements.

Vegetative obstructions (as well as protrusions) can be managed with routine maintenance and by encouraging homeowner participation in maintaining a clear right-of-way. Per the City Code, Sec. 66-60, *'it is unlawful for the owner or occupant of any lot or tract of land to allow the branches or foliage of any trees, shrubs, or bushes growing on the lot or tract of land to hang down or out over a street, alley, or sidewalk within ten feet of the surface of the street, sidewalk or alley.'* Also, the Board of Public Works is tasked with notifying the owner/occupant of the violation.

Fixed obstructions may be costly to address as they generally occur with utilities and may require relocation or purchase of right-of-way from adjacent landowners. For these items, a work-around solution is often preferred. These may include widening a small portion of sidewalk where possible or providing an equivalent alternate route.

4.7 Overall Compliance

The statistics above are useful in identifying trends in the deficiencies as a means to prevent them from occurring in new construction. However, the goal of this transition plan is to list the physical barriers in the City's ROW facilities that limit the accessibility and, therefore, it is necessary to look at each location as a whole to determine overall compliance in order to provide a detailed outline of the methods to be utilized to remove these barriers and make the

facilities accessible. All solutions offered within sections 4.1 to 4.5 address only the criteria indicated. Complete reconstruction may be required where multiple compliance issues are involved. See *Appendix A* for data reports.

4.8 Sidewalk Barrier Ranking Analysis

The City's self-evaluation of the Public Right-Of-Way takes into account factors such as level of use, degree of danger posed, complaints or requests for repair received, and other factors.

These factors can be grouped into two categories. **Contributing contextual factors** account for use patterns and distribution in relation to city services, residential zones, and public services. **Physical Impedance factors** include the actual physical characteristics of the specific right-of-way feature and the severity of the barrier to use. These categories are further defined in Section 3.3 of this report. Within Appendix A, the sidewalks are ranked by percent defective after considering the physical impedance factors. See 3.4 information regarding contextual factors.

Self Evaluation Findings:

Based on the data collected, a percentage of replacement required was calculated for each data location. This percentage was then applied to the linear footage of that data collection area and multiplied by the approximate cost of sidewalk replacement (in 2012 dollars). Based upon these calculations, the following table illustrates the estimated value of improvements required to make all sidewalk facilities accessible.

Table 4.1. Summary of Sidewalk Costs.

Cost Summary:	
Low Priority	\$2,871,349
Medium Priority	\$2,763,386
High Priority	\$1,519,560
2012-2013 Construction	\$185,288
Total Cost	\$7,339,582

See Section 7 for Transition Plan and phasing of implementation. See *Appendix A* for data reports.

4.9 Future Improvements

While the Americans with Disabilities Act doesn't require pedestrian facilities in the absence of a pedestrian route, it does require that pedestrian facilities, when newly constructed or altered, be accessible. Pedestrian facilities would include, but not be limited to, sidewalks, curb ramps, pedestrian signals, and sign furnishings. The previous sections of this SETP addressed those facilities already existing. The focus of this section is on future construction and connection of existing corridors.

The City of Mishawaka, as a general policy, plans infrastructure projects with the inclusion of pedestrian facilities, unless there are substantial safety or cost reasons for not doing so. The City strives for connectivity within its jurisdiction and illustrates this with its ongoing master planning efforts through the Engineering Department and Department of Planning and Development.

Per the policy statement in FHWA's **Accommodating Bicycle and Pedestrian Travel: A Recommended Approach**, "*bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:*

- *bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right of way or within the same transportation corridor.*
- *the cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project.*
- *where sparsity of population or other factors indicate an absence of need."*

The City also places an emphasis on pedestrian safety as a key consideration for the appropriateness of pedestrian facilities in any given corridor. All requests for pedestrian facilities necessitate an assessment of current conditions and needs in order to be considered for implementation.

From the FHWA's publication, '**Bicycle and Pedestrian Transportation Planning Guidance**', an assessment might include the following:

- Determination of current levels of use for bicycling and walking transportation trips, and current numbers of injuries and fatalities involving bicyclists and pedestrians.
- Evaluation of the existing transportation infrastructure (including on- and off-road facilities) to determine current conditions and capacities and to identify gaps or deficiencies in terms of accommodating potential and existing bicycle and pedestrian travel.
- Identification of desired travel corridors for bicycle and pedestrian trips.
- Examination of existing land use and zoning, and the patterns of land use in the community.
- Basis of the need for modifications to the transportation system through surveys, origin destination studies, public input, or other data collection techniques.

(A complete listing of recommended considerations can be found at http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/inter.cfm)

Example Areas:

- **Grape Road and Main Street Corridors** – The existing infrastructure of these arterial corridors does not currently allow adequate right-of-way to provide safe, convenient, and comfortable travel for bicyclists and pedestrians. Significant reconstruction, right-of-way acquisition and relocation of traffic signals and traffic flow changes would be required for the inclusion of pedestrian facilities to be feasible in a safe manner.

Traffic calming measures to lower vehicle speeds would need to be incorporated for this high traffic, high vehicle use area. Commercial areas along this corridor were constructed twenty to thirty years ago and would require rework on behalf of private owners to provide connectivity from the right-of-way to businesses and facilities. Until such time as funding is available for this level of intensive reconstruction and traffic and safety concerns can be addressed, corridors of this magnitude are not being considered for pedestrian facilities.

The City is committed to working with the newly constructed St. Joseph Regional Medical Center to develop pathways that would provide alternate pedestrian routes away from high volume traffic corridors, north of Catalpa to Douglas Road.

Also, the City strives to work with local public transportation agencies to design routes to better serve the high volume commercial areas for all users, including those with disabilities.

- **Current and Future Annexation** – Inclusion of pedestrian facilities within annexed residential areas is a goal of the City. While these areas may not yet be connected to the full pedestrian network of the City, pedestrian facilities provide for safer circulation within neighborhoods and encourage an active community. Master plans for the City will strive to connect these facilities, as practicable, through future infrastructure improvements.

‘The challenge for transportation planners, highway engineers and bicycle and pedestrian user groups, therefore, is to balance their competing interest in a limited amount of right-of-way, and to develop a transportation infrastructure that provides access for all, a real choice of modes, and safety in equal measure for each mode of travel.’

(Excerpt from FHWA’s *Accommodating Bicycle and Pedestrian Travel: A Recommended Approach*)

5.0 Self-Evaluation of Pedestrian Facilities with the Public Right-Of-Way – Curb Ramp Inventory

This segment of the self-evaluation plan summarizes the review of current curb ramps within the public ROW. The findings and recommendations contained in this segment will provide the basis for the implementation of specific improvements to accessibility on City curb ramps.

Approximately 2,809 data collection locations were evaluated. Of these locations, approximately 1,105 did not have an existing ramp present for evaluation, but did provide a crossing point. These are considered non-compliant locations and will require complete reconstruction. These locations will be removed from the total number of locations when calculating the percentages within the following text to allow more accurate comparison of the existing ramps and transitions.

5.1 Curb Ramp Types

Curb ramps types are classified based on the orientation of the ramp to the adjacent curb. As stated in Advisory R304.1 of the PROWAG, the following types of curb ramps exist:

Perpendicular Curb Ramp

Perpendicular curb ramps have a running slope that cuts through or is built up to the curb at right angles or meets the gutter break at right angles where the curb is curved.

Parallel Curb Ramp

Parallel curb ramps have a running slope that is in-line with the direction of sidewalk travel (parallel to the curb) and lower the sidewalk to a level turning space where a turn is made to enter the pedestrian street crossing. Parallel ramps can be useful where ROW is limited to get a pedestrian from street level to the sidewalk in a shorter depth space.

Combination Curb Ramp

Parallel and perpendicular curb ramps can be combined. A parallel curb ramp is used to lower the sidewalk to a mid-landing and a short

perpendicular curb ramp connects the landing to the street. Combination curb ramps can be provided where the sidewalk is at least 6.0 feet wide and can provide access in situations where the sidewalk is much higher than 6" above the street elevation.

Blended Transition

Blended transitions are raised pedestrian street crossings, depressed corners, or similar connections between pedestrian access routes at the level of the sidewalk and the level of the pedestrian street crossing that have a grade of 5 percent or less. Blended transitions are suitable for a range of sidewalk conditions

Diagonal Curb Ramp

Per R207.2, where existing physical constraints prevent compliance with R207.1, a single diagonal curb ramp shall be permitted to serve both pedestrian street crossings.

Diagonal curb ramps are not the preferred method of construction due to lack of directional cues for pedestrians using the crossing and safety concerns created by vehicles misconstruing pedestrian intentions.

5.2 Ramp Width

Requirements:

Per R304.5.1, the clear width of curb ramp runs (excluding any flared sides), blended transitions, and turning spaces shall be 4.0 feet minimum.

Self Evaluation Findings:

Within the City, approximately 5% of the locations did not provide adequate clear width for the curb ramp run.

Addressing the Issue:

Ramp width could be limited by adjacent ROW availability, obstructions, or simply have been constructed too narrow to meet current requirements. If unobstructed area is available within the ROW, the ramp can be widened by

replacement or addition of pavement. If ROW or an obstruction is a limiting factor, a different ramp configuration may alleviate the problem. If not, the ramp or obstruction may need to be relocated, or inquiries made about obtaining additional ROW.

5.3 Ramp Slopes

Requirements:

Per R304.2.2, the running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 5% minimum and 8.3% maximum but shall not require the ramp length to exceed 15 feet. Additionally, the counter slope of the gutter or street at the foot of curb ramp runs, blended transitions, and turning spaces shall be 5 percent maximum.

Per R304.5.3, the cross slope of curb ramps, blended transitions, and turning spaces shall be 2 percent maximum. At pedestrian street crossings without yield or stop control and at midblock pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade.

Per 304.5.2, grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

Self Evaluation Findings:

Within the City, the following slope data was collected:

- Approximately 20% of locations had ramp running slopes of greater than the allowable slope of 8.3%.
- Approximately 47% of locations had ramp running slopes within the acceptable range of 5% to 8.3%.
- Approximately 33% of locations qualified as blended transitions with running slope of less than 5%.

Addressing the Issue:

Non-compliant ramp slopes can be caused by a number of factors including but not limited to, construction tolerances, design inconsistencies, construction prior to current standards, steep roadway grades, adjacent buildings or obstructions, or limited ROW.

Possible solutions may include:

- Extending the rise of the ramp over a longer run
- Creating a combination ramp
- Increasing slope of adjacent sidewalk panels past the top landing
- Incorporating returned curbs or retaining wall to avoid adjacent obstructions or limited ROW

5.4 Flares

Requirements:

Per R304.2.3, *where a pedestrian circulation path crosses the curb ramp, flared sides shall be sloped 10 percent maximum, measured parallel to the curb line.*

Self Evaluation Findings:

During the self evaluation, it was found that:

- Approx. 61% of locations did not require a flared side. These locations were blended transitions, adjacent to tree lawns, or had returned curbs instead of flares.
- Approx. 21% of locations required two flared sides and exceeded the 10% maximum slope. Distinction is not made whether one or both side flares were out of compliance.
- Approx. 18% of locations required only one flared side and said location exceeded the 10% maximum slope. The opposite side bordered on adjacent tree lawn.

Addressing the Issue:

Non-compliant flare slopes or configurations can be caused by a number of factors including but not limited to, construction tolerances, design inconsistencies, construction prior to current standards, adjacent buildings or obstructions, or limited ROW.

Possible solutions may include:

- Extending the rise of the flare over an appropriate run
- Using a returned curb instead of flare
- Replacing flare and removing curb as necessary to accommodate corrected flare.

5.5 Landings/Turning Spaces

Requirements:

Per R304.2 and R304.3, a turning space of 4.0 feet minimum by 4.0 feet minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 4.0 feet minimum by 5.0 feet minimum. The 5.0 feet dimension shall be provided in the direction of the ramp run.

Additionally, per R304.5.5, beyond the bottom grade break, a clear space 4.0 feet minimum by 4.0 feet minimum shall be provided within the width of the pedestrian street crossing and wholly outside the parallel vehicle travel lane. For parallel ramps (R304.3), this means at the bottom of the ramp behind the curb line. Diagonal ramps must also accommodate this turning space within the crosswalk and wholly outside the vehicle travel lanes.

Per R304.5.3, the cross slope of curb ramps, blended transitions, and turning spaces shall be 2 percent maximum.

Self Evaluation Findings:

- Approx. 37% of locations met landing slope and size requirements.
- Approx. 18% of locations met landing size requirement, but lacked the appropriate landing slopes.
- Approx. 1% of locations met slope requirement, but lacked the appropriate landing size.
- Approx. 26% were non-compliant in both landing slope and size.

Addressing the Issue:

Non-compliant landings can be caused by a number of factors including but not limited to, construction tolerances, design inconsistencies, construction prior to current standards, adjacent buildings or obstructions, or limited ROW.

Possible solutions may include:

- Constructing new landing and turning space adjacent to top of ramp
- Creating a combination ramp to accommodate misaligned landing
- Increasing slope of adjacent sidewalk panels past the top landing
- Replacing blended transition with curb ramp to increase available space for landing
- Incorporating returned curbs or retaining wall to avoid adjacent obstructions or limited ROW

5.6 Detectable Warnings

Requirements:

Per R208, detectable warnings surfaces indicate the boundary between pedestrian and vehicular routes where there is a flush rather than curbed connection.

Detectable warning surfaces shall be provided at the following locations:

- Curb ramps and blended transitions at pedestrian street crossings;
- Pedestrian Refuge Islands (unless at street level AND less than 6' in length);
- Pedestrian at-grade rail crossings not located within a street or highway;
- Transit stops (Not Applicable for City of Mishawaka)

Detectable warnings should not be provided at crossings of residential driveways as the pedestrian ROW continues across residential driveway aprons. They should be provided at high traffic commercial drive ways provided with yield or stop control since these function similarly to roadways, such as those found at large commercial centers.

Per R305.1, Detectable warning surfaces shall extend 2.0 feet minimum in the direction of pedestrian travel. At curb ramps and blended transitions, detectable warning surfaces shall extend the full width of the ramp run (excluding any flared sides), blended transition, or turning space.

Additionally, per Advisory R305.2, some detectable warning products require a concrete border for proper installation. The concrete border should not exceed 2 inches. See Illustration below from the PROWAG regarding placement and dimensions.

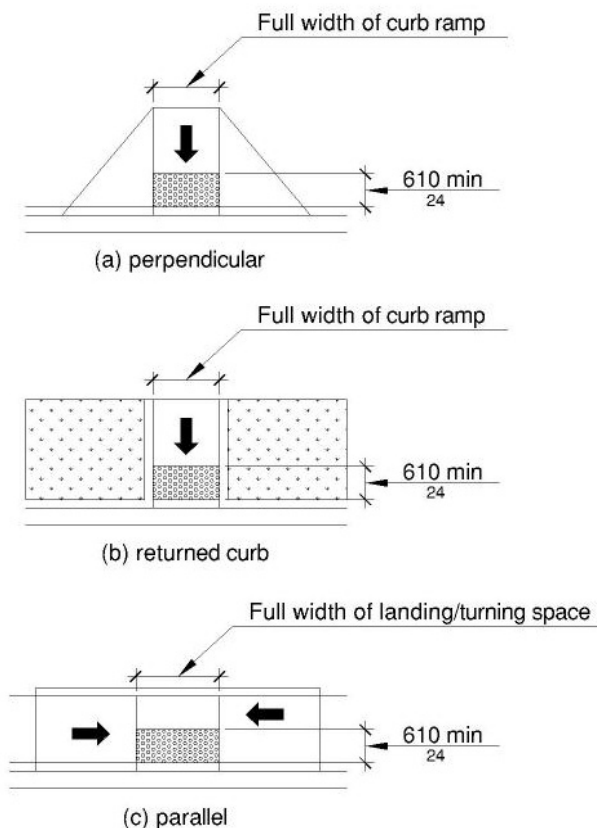


Figure R305.1.4
Size

Self Evaluation Findings:

Evaluation of the detectable warnings produced the following results:

- Approx. 41% met criteria for depth, width and contrasting color.
- Approx. 2% met criteria for width and contrast, but lacked full 24" depth.

- Approx. 11% met criteria for depth and contrast, but did not span full width.
- Approx. 1% only met contrast criteria.
- Approx. 45% of locations did not provide any detectable warning.

Addressing the Issue:

Retrofit detectable warning kits are available for use on ramps where all other criteria are compliant.

If detectable warning plate does not extend full width or depth, they can be removed and replaced along with any concrete damaged by the operation.

Steel, HDPE, or cast iron products provide greater durability for the truncated domes. Using these products in lieu of a brick or cast concrete panel may minimize plow damage and wear of truncated domes.

5.7 Drainage

Requirements:

According to the FHWA publication "Designing Sidewalks and Trails for Access", *'poor drainage at the bottom of a curb ramp is inconvenient to all pedestrians. It is a particular nuisance for people who rely on the curb ramp for access and who will, therefore, not be able to avoid the area. When the water eventually dries up, debris, which further impedes access, is usually left at the base of the ramp. In cold-weather locations, water that does not drain away can turn into slush or ice, creating a more hazardous situation'*.

Self Evaluation Findings:

The self-evaluation of the City's curb ramps noted the following:

- Approx. 9% of curb ramps were located within 6' of a drainage structure, indicating potential for a drainage problem during heavy rain events.
- Approx. 5% exhibited evidence of ponding, including buildup of debris and sediment at the foot of the ramp.
- Approx. 86% of ramps did not exhibit a potential for drainage concerns, although it

should be noted the self evaluation period include extended record dry spells which could influence drainage observations.

Addressing the Issue:

Best practices for avoiding drainage issues include locating drainage structures on the uphill side of ramps, locating low points 6' or more from the ramp, 'tabling' the intersection slightly where tying into ramps, designing gutter slopes with continuous flow to carry water past the foot of ramps, eliminating changes in level at the gutter line, and maintaining inlets and gutters to ensure adequate flow during rain events.

5.8 Obstructions, Protrusions and Utility Considerations

Requirements:

Per R402.2, protruding objects are those objects with leading edges more than 2.25' and not more than 6.7' above the finish surface which protrude more than 4" horizontally into pedestrian circulation paths.

Per R210, street furniture and other objects may not reduce the minimum clear width of the PAR. These items would be considered an obstruction of the continuous clear width provided.

Self Evaluation Findings:

No protruding objects were identified in the course of the curb ramp evaluations.

Obstructions observed in the City include light and utility poles, traffic signs, fire hydrants, and utility cabinets. Only 31 vertical obstructions were identified. A total of 94 ground plane utility conflicts, including, but not limited to, manholes, valve covers, open grate castings, and access boxes. These conflicts were generally classified as vertical displacements and slip hazards.

Addressing the Issue:

Fixed obstructions may be costly to address as they generally occur with utilities and may require relocation or purchase of right-of-way from adjacent landowners. For these items, a

work-around solution is often preferred. These may include widening a small portion of sidewalk where possible or providing an equivalent alternate route.

5.9 Changes in Level / Surface Condition

Requirements:

Per R302.7, the surface of the PAR shall be firm, stable, and slip-resistant. Grade breaks shall be flush. Vertical surface discontinuities (changes in level) shall be 1/2" maximum with those between 1/4" and 1/2" being beveled at slope not steeper than 50% across the entire discontinuity. Horizontal openings such as grates and joints may not exceed 1/2". Elongated openings should be placed perpendicular to dominant direction of travel.

Self Evaluation Findings:

Displacements observed at the gutter line or other ramp joints included:

- Approx. 13% of location exhibited horizontal displacements.
- Approx. 9% of locations exhibited vertical displacements.
- Approx. 78% of locations did not exhibit any displacements over the required threshold.

No horizontal openings over the required dimension were observed in the vicinity of the curb ramps surveyed.

Addressing the Issue:

Changes in level and surface condition are a common problem as infrastructure ages. Temporary fixes of high hazard areas can be implemented to promote the safety of all users while long-term solutions are set into action. Public input is particularly important in locating hazardous areas as they occur. In general, the following solutions can address changes in level and surface condition.

Level Changes

- Temporary placement of concrete or asphalt to ramp from adjacent surface

- Grinding edge at surface changes of up to ½" to achieve allowable bevel
- Replacement of ramp panel or gutter

Surface Condition

- Replacement of damaged ramp panel
- Maintenance to keep free of vegetation and debris
- Avoid inclusion of depressed grooves in future projects to limit freeze/thaw and debris problems associated with the grooves.

5.10 Overall Compliance

The statistics above are useful in identifying trends in the deficiencies as a means to prevent them from occurring in new construction. However, the goal of this transition plan is to list the physical barriers in the City's ROW facilities that limit the accessibility and, therefore, it is necessary to look at each location as a whole to determine overall compliance in order to provide a detailed outline of the methods to be utilized to remove these barriers and make the facilities accessible. All solutions offered within sections 5.1 to 5.9 address only the criteria indicated. Complete reconstruction may be required where multiple compliance issues are involved.

Approximately 7% of existing ramps or transitions exhibited compliance with all criteria. The extent of reconstruction required for the remaining 93% of ramps varies widely. Some locations may require simple fixes such as replacing or installing tactile warnings or replacement of a non-compliant flare. Some locations will require complete reconstruction. Each location will require thorough examination in order to design the correct solution to its unique situation. See *Appendix B* for data reports.

Common Examples throughout City



Mid-Block Crossing at Milburn (Photo illustrates detectable warnings full width and depth at refuge island and located wholly within crosswalk)



Geyer Ave. and Milburn Blvd. (Photo illustrates common misuse of flares. Flare to lawn is not necessary. Inner flare is too steep creating trip hazard.)



11th St. and West St. (Photo illustrates proper use of flares for two ramps on tight radius, however, detectable warnings are not full ramp width.)



Lincolnway and Spring St. (Photo Illustrates proper location of detectable warning along full width of flush connection. Note that truncated domes have been sheared off and no longer serve intended purpose. Crosswalk should encompass entire flush connection.)



McKinley Ave. and Division St. (Photo illustrates common misuse of detectable warnings. Warnings to extend entire width of area flush with street. This provides gaps which could be missed by pedestrian with low vision.)



7th St. and Main St. (Photo illustrates common issue in older neighborhoods. No detectable warnings, no landings, non-compliant cross and running slopes. Utility pole location complicates solution as potential obstruction.)



Lincolnway and Columbia St. (Photo illustrates typical case where no landing exists due to ROW limitation or other physical constraint.)

5.11 Curb Ramp Barrier Analysis

The City's self-evaluation of the Public Right-Of-Way takes into account factors such as level of use, degree of danger posed, complaints or requests for repair received, and other factors.

These factors can be grouped into two categories. **Contributing contextual factors** account for use patterns and distribution in relation to city services, residential zones, and public services. **Physical Impedance factors** include the actual physical characteristics of the specific right-of-way feature and the severity of the barrier to use. These categories are further defined in Section 3.3 of this report. Within Appendix B, the curb ramps are ranked as compliant, Low- Usable, Medium- Difficult Use, and High – Hazardous after considering the physical impedance factors. See 3.4 information regarding contextual factors.

Self Evaluation Findings:

- Compliant - 193 locations
- Low- Usable - 569 locations
- Medium – Difficult Use – 1060 locations
- High – Hazardous – 987 locations

In addition, the methodology used for estimating costs of corrections included dividing all curb ramps into cost groups based on amount of rework required. These groups

made the following assumptions in order of magnitude. Photo examples of each group are shown below the group description.

Cost Group 1 – Locations where only non-compliant criterion was a single flared side for perpendicular ramps. This work would include removal of flare, grinding curb, removal of necessary pavement panels and replacement.



Cost Group 1 Example

Cost Group 2 - Locations where only non-compliant criterion was detectable warning. Work would include removal of the single panel and replacement with one panel of concrete, including detectable warning plate.



Cost Group 2 Example

Cost Group 3 - Ramp Reconstruct, Basic (Ramp Only, no R/W issues, no sidewalk impacts): Work includes correcting slope

issues, removal of ramp and landing, reconstruction to provide a compliant, level landing and ramp that connects with detectable warning plate.



Cost Group 3 Example

Cost Group 4 - Ramp Reconstruct, Moderate (Ramp, 2 panel sidewalk each side, No R/W issues): Work would include same as Cost Group 3 but due to greater slope issues, would also include concrete sidewalk panels to each side of the ramp to correct.



Cost Group 4 Example

Cost Group 5 - Ramp Reconstruct, Major (Ramp, 3-5 panel sidewalk each side, No R/W issues): Work would include same as Cost Group 3 but due to greater slope issues, would also include several concrete sidewalk panels to each side of the ramp to correct.



Cost Group 5 Example

Cost Group 6 - Ramp Reconstruct, Parallel (Change ramp to Parallel configuration due to R/W limiting landing availability): Work would include removal of existing ramp, reconstruction to convert to a parallel ramp, including a level landing coming off the crosswalk, ramps in each direction to tie into existing sidewalk, additional sidewalk panels as needed, and detectable warning plates.



Cost Group 6 Example

Cost Group 7 - Ramp Reconstruct, R/W (Flagging of potential R/W needs, Limited application, RW acquisition costs not included): This category is included in order to flag locations where ROW may be needed to construct compliant ramps. These will need to be looked at on a case-by-case basis to determine extent of work, ROW required, and technical feasibility of creating a compliant

ramp. This cost group may also include ROW limited locations where conversion from one ramp to two perpendicular ramps alleviates the deficiencies.



Cost Group 7 Example

Analysis of the inventory based on cost group is included below in Table 5.1. See Section 7 for Transition Plan and phasing of implementation. See *Appendix B* for data reports.

Table 5.1. Curb ramp statistics and costs.

Curb Ramp Statistics

Number of Ramps per Cost Group			Amount per Cost Group		Ramp Type Breakdown	
Group	# Ramps		Group	Cost	Type	
0	212	6%	0	\$0	In-Line	1934
1	220	6%	1	\$220,000	Parallel	1867
2	190	5%	2	\$285,000		3801
3	554	15%	3	\$1,495,800		
4	1702	45%	4	\$6,808,000		
5	702	18%	5	\$3,790,800		
6	60	2%	6	\$408,000		
7	161	4%	7	\$1,932,000		
Total	3801		Total	\$14,939,600		
Average Cost Per Ramp:		\$3,930.44				

Note: Total number of ramps (3,801) includes additional quantity from the number surveyed (2,809) to account for conversion of single ramp being converted to 2 separate ramps to gain compliance

6.0 Self-Evaluation of Pedestrian Facilities within the Public Right-Of Way – Miscellaneous

This segment of the self-evaluation plan summarizes the review of current miscellaneous facilities within the public ROW. The findings and recommendations contained in this segment will provide the basis for the implementation of specific improvements to accessibility on for site furnishings, accessible pedestrian signals, on-street parking, rail crossings and roundabouts.

6.1 Site Furnishings

Requirements:

Site furnishings are not currently included in the PROWAG. The ADAAG was used to evaluate furnishings. Furnishings should be located on an accessible route.

Built-in benches require the following elements per 903. As outdoor benches are not specifically addressed, it is not anticipated all standards will be compliant and/or applicable to all situations.

- Clear level ground space at end of bench, minimum of 30" x 48";
- Seat 42" min. length x 20" min. depth;
- Seat 17" min. -19" max. above finish ground;
- Back support (42" min. length and extend from point 2" max above seat to 18" min. above seat, and be 2" max. from rear edge of seat measured horizontally).

Trash receptacles require the following elements:

- Clear level ground space 36" x 48" for forward approach;
- Opening within 15" – 48" reach range above finish grade;
- Opening mechanism operable with one hand; no pinching or grasping; less than 5 lbs of force

Picnic tables require the following elements per 902:

- Clear level ground space of 36" minimum width around all sides;
- Surface height between 28" min. and 34" max;
- Seat 17" min. -19" max. above finish ground;
- Knee clearance per 306.3;
- Have at least one side or end accessible by wheelchairs using forward approach with 30"x48" min. clear space

Self Evaluation Findings:

Site furnishings within the public right-of-way were observed within the Downtown area. Furnishings provided by other entities, such as Transpo, within the public right-of-way were not included in this evaluation.

Benches:

All benches surveyed were compliant for seat height. Single seat benches were also found which complied with the 20" minimum depth. Few locations offered back support (required for built-in benches). Benches were 6' in length or greater. Clear, level ground space at ends of benches to allow for companion seating were not provided.

Trash Receptacles:

Receptacles surveyed did not have operable openings and were all within the appropriate reach range.

Picnic Tables:

Clearance around all tables was over 36". Surface heights varied slightly, but were within the required tolerances. Knee space was adequate at the wheelchair accessible units. 21 seats were provided at the outdoor seating area at Main and Church. One wheelchair accessible seat was provided. It is recommended that wheelchair spaces be provided for 5% of the total seating capacity.

Addressing the Issue:

The following solutions may be implemented to address site furnishing deficiencies:

- Relocate to accessible route or area with required clear space.
- Provide additional pavement to accommodate adjacent clear space requirement at benches.
- Adjust operating mechanism on trash receptacles to reduce force required.
- Provide new furnishings in cases of improper dimensional criteria.

6.2 Accessible Pedestrian Signals

Requirements:

According to the Public Rights-Of-Way Accessibility Guidelines:

‘An accessible pedestrian signal and pedestrian push button is an integrated device that communicates information about the WALK and DON’T WALK intervals at signalized intersections in non-visual formats (i.e., audible tones and vibro-tactile surfaces) to pedestrians who are blind and have low vision.’

Per R209, ‘where pedestrian signals are provided at pedestrian street crossings, they shall include accessible pedestrian signals (APS) and pedestrian push buttons complying with sections 4E.08 through 4E.13 of the 2009 Manual on Uniform Traffic Control Devices (MUTCD)’.

General Accessible Pedestrian Signal Requirements (Additional requirements not listed here may be provided in the MUTCD for specific locations and crossing time parameters):

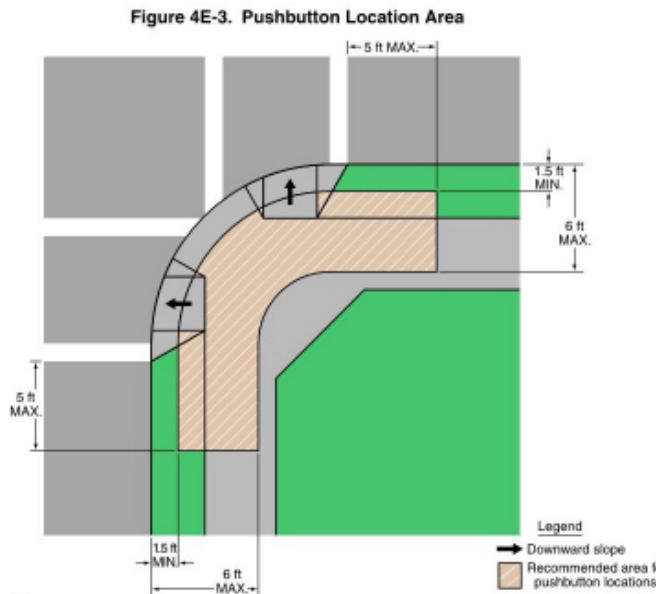
- Accessible pedestrian signals shall be used in combination with pedestrian signal timing.
- Signs shall be mounted adjacent to or integral with pedestrian pushbuttons, explaining their purpose and use.
- Positioning of pedestrian pushbuttons and the legends on the pedestrian pushbutton signs shall clearly indicate which crosswalk signal is actuated by each pedestrian pushbutton.

- Pushbutton shall activate both the walk interval and the accessible pedestrian signals.
- Vibrotactile walk indications shall be provided by a tactile arrow on the pushbutton that vibrates during the walk interval.
- Have an audible walk indication during the walk interval only. The audible walk indication shall be audible from the beginning of the associated crosswalk.
- The accessible walk indication shall have the same duration as the pedestrian walk signal.
- Audible tone walk indications shall repeat at eight to ten ticks per second. Audible tones used as walk indications shall consist of multiple frequencies with a dominant component at 880 Hz.
- Automatic volume adjustment in response to ambient traffic sound level shall be provided up to a maximum volume of 100 dBA.
- To enable pedestrians who have visual disabilities to distinguish and locate the appropriate pushbutton at an accessible pedestrian signal location, pushbuttons shall clearly indicate by means of tactile arrows which crosswalk signal is actuated by each pushbutton. Tactile arrows shall be located on the pushbutton, have high visual contrast (light on dark or dark on light), and shall be aligned parallel to the direction of travel on the associated crosswalk.
- An accessible pedestrian pushbutton shall incorporate a locator tone.

In addition, pedestrian pushbuttons should be located to meet all of the following criteria:

- On an accessible route within 1.5’ to 6’ from edge of curb, shoulder, or pavement;
- Between the edge of the crosswalk line (extended) farthest from the center of the intersection and the side of a curb ramp (if present), but not greater than 5 feet from said crosswalk line;
- Push button parallel to crosswalk to be used;

- Push button to be within unobstructed, accessible reach range (between 15" – 48" above finish grade and within 10" of adjacent level clear space, 3.5' recommended in MUTCD)



Self Evaluation Findings:

Within the City of Mishawaka, there are 69 signalized intersections, 40 intersections have pedestrian signal heads. Only 1 intersection within the City of Mishawaka has APS. This intersection is at Ironwood and River Avenue and falls on the dividing line between Mishawaka and South Bend. The intersection and signal improvements were constructed by and are maintained by the City of South Bend. It was not evaluated for the purposes of this study as it does not fall under Mishawaka jurisdiction.

Addressing the Issue:

The City Engineering Department intends to include these in future infrastructure improvement projects where new signal construction or alterations including signal controller, software or signal head replacement occurs.

See Section 7 for Transition Plan and phasing of implementation. See *Appendix C* Exhibit 6.1-1 for cost estimate and Exhibit 6.1-2 for map.



Pedestrian Signal Provided at Jefferson Blvd. and Main St.

6.3 On-Street Parking

Requirements:

Per R214 of the PROWAG, 'where on-street parking is provided on the block perimeter and the parking is marked or metered, accessible parking spaces shall be provided. Accessible parking spaces should be located where the street has the least crown and grade and close to key destinations (R309.1).

Where width of sidewalk or available ROW exceeds 14', an access aisle shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. Access aisle shall comply with R302.7 and shall not encroach on vehicular travel lane. An access aisle is not required where width of adjacent ROW is less than or equal to 14'. Where an access aisle is not provided, the parking spaces shall be located at the end of the block face (R309.2). Where perpendicular or angles parking is provided, an access aisle 8' wide minimum shall be provided at street level the full length of the parking space and shall connect to a PAR. (309.3)'. Where van parking is provided at angled parking, it is also recommended that the access aisle be located on the passenger side to facilitate deployment of a lift from the vehicle.

Parking space identification signage is required per the ADAAG. Signs shall include the International Symbol of Accessibility. Van parking spaces shall be designated as 'Van Accessible'. Signs should be located 60" minimum to bottom of sign if not located on pedestrian circulation route, With 80" minimum from finish grade provided if along pedestrian circulation route to avoid protruding objects. For parallel parking, they should be located at the head or foot of the parking space per R211.4.

Self Evaluation Findings:

Marked on-street parking within Mishawaka is located mainly in the downtown area. Throughout other areas of the City, on-street parking is provided but not marked. Within these areas, reserved parking exists for those displaying disabled placards, but spaces are provided at resident request. Such spaces are located as determined by the resident and the Board of Public Works and were not surveyed as part of this evaluation.

Marked parking within the City consists of parallel, 90 degree and angled parking. Counts were taken on each block face where marked parking is provided to determine the number of parking spaces required. Currently, 21 spaces are designated as accessible. Per the parking counts, the City needs to provide 26 van accessible spaces and 5 car accessible spaces for compliance. Parking requirements are calculate on and to be provided on a per block face basis. As such, all 21 of the existing spaces may not be in a location to satisfy the requirements to count towards the total numbers needed. See Exhibits 6.2-1 and 6.2-2 in Appendix C for specific counts and locations.

Detailed evaluations where completed for only those areas where existing accessible spaces were provided.

In general, these observations were made:

- Accessible aisles were missing.
- Slopes exceeded 2% maximum.
- Van spaces were not provided and/or not designated as such.

- Car spaces provided when van space required.
- Not located adjacent to accessible route or ramp.
- No accessible parking provided.



Photo illustrates on-street angled parking on Main St. Access aisle provided but not connected to accessible route. Signage mounted below 80" adjacent to a pedestrian circulation area.



Photo illustrates on-street angled parking with no access aisle provided. Adjacent cars limit width necessary for entry and exit of vehicle. Space also located midblock.



Photo illustrates on-street parallel parking on Main St. Parking space is located near curb ramp and signage is provided in appropriate manner. No access aisle is required.

Addressing the Issue:

City Code Sec. 58-330 through 58-33 address the use and designation of Parking for Persons with Physical Disabilities. The Board of Public Works is authorized to designate spaces and the City Police Department enforces the ordinance.

Providing spaces may be as simple as providing pavement markings and signage. Other areas may require regrading and repaving of the parking space to meet slope requirements, and/or installation of accessible curb ramps where none is provided adjacent to the proposed space.

Each block faced surveyed should be analyzed to determine the most logical placement of the required parking spaces. Priority should be given to those areas serving local government offices and facilities and highly used retail and placed to offer the shortest accessible route to such services.

See Section 7 for Transition Plan and phasing of implementation.

6.4 Rail Crossings

Requirements:

Per R302.7.4, *“flangeway gaps at pedestrian at-grade rail crossings shall be 2.5 in maximum on*

non-freight rail track and 3 in maximum on freight rail track. Flangeway gaps are necessary to allow the passage of train wheel flanges. Flangeway gaps pose a potential hazard to pedestrians who use wheelchairs because the gaps can entrap the wheelchair casters”.

Per R305.2.5, *“at pedestrian at-grade rail crossings not located within a street or highway, detectable warning surfaces shall be placed on each side of the rail crossing. The edge of the detectable warning surface nearest the rail crossing shall be 6.0 feet minimum and 15.0 feet maximum from the centerline of the nearest rail. Where pedestrian gates are provided, detectable warning surfaces shall be placed on the side of the gates opposite the rail”.*

Self Evaluation Findings:

On the track running north of the St. Joseph River, the City of Mishawaka has only 7 remaining at-grade railroad crossings of the Grand Trunk Western line within the corporate limits. Two are located along roadway without pedestrian facilities (Business US 20 and Fir Road). Logan Street crossing occurs at the boundary line with the City of South Bend. No pedestrian facilities exist on the east (Mishawaka) side of the street. From west to east, the at-grade crossings with pedestrian facilities include Clay St., Liberty Dr., Division St., and Jefferson Blvd.

On the track running south of the St. Joseph River, the City of Mishawaka has 17 remaining at-grade Conrail/Norfolk Southern railroad crossings within the corporate limits.

Pedestrian facilities do not extend to at-grade rail crossings at Beiger St., Delorenzi Ave., Kline St., Oakside Ave., and Elder St.

Crossings at Russell St., Carlton St., Hendricks St., Logan St., Smith St., West St., Spring St., Main St., Laurel St., Merrifield Ave., Byrkit Ave., and Capital Ave. are at-grade with pedestrian routes leading to the crossing.

The crossings all presented with similar conditions:

- Sidewalks transition to inaccessible slopes near crossing.
- Condition of pavement is not stable, firm and slip resistant.
- Width varies and is under required 48" width in places.
- Flangeway gap varies 2.5" to 4".
- PAR curves around crossing equipment creating potential obstruction when in use.
- Treatment along edge of rails varied. Materials included asphalt, metal or plastic plates, and wood. The locations with wood may present a slip hazard when wet.
- No detectable warnings were observed at any rail crossings.
- No pedestrian gates were observed (not required).



Photo shows typical condition at rail crossings within City.

Per MACOG GIS, rail right-of-way is approximately 80' wide. Based on this information, all improvements related to the flangeway gaps and required detectable warnings would fall within the right-of-way controlled by the railroads.

Addressing the Issue:

As an interested party, the City could notify the railway of the condition of the pedestrian crossings and the need for improvements to meet accessibility standards.

See *Appendix C* for Exhibit 6.3-1 for map showing at-grade crossing locations.

6.5 Roundabouts

Requirements:

Section R306.3 provides guidance for roundabouts. Items addressed include separation, pedestrian activated signals, and channelized turn lanes.

Self Evaluation Findings:

Only one roundabout is located within City limits at the intersection of Front Street and Spring Street. It is a single lane with splitter islands. Sidewalks are separated from the travel lanes by tree lawn, thus requiring no additional demarcation of the separation. No signals are provided, and per Advisory R306.3.2, none are required for roundabouts with single-lane approach and exit legs. Curb ramps provide detectable warnings prior to entering the intersection. No detectable warnings are provided at the flush splitter island crossings.



Aerial view of Front and Spring Streets



Photo of splitter island and curb ramp access

7.0 Transition Plan

The Transition Plan describes how the City will be transitioning to compliance with the ADA. The City must provide access for individuals with disabilities and document areas of noncompliance. Additional documentation is provided as barriers are removed.

If structural changes are identified to provide program accessibility as part of the self-evaluation, ADA identifies specific elements to be included in the transition plan. At a minimum, the elements of the Transition Plan are:

- 1) A list of the physical barriers in the City's facilities that limit the accessibility of its programs, activities, or services to individuals with disabilities [\[28 CFR 35.150 \(d\)\(3\)\(i\)\]](#)
- 2) A detailed outline of the methods to be utilized to remove these barriers and make the facilities accessible [\[28 CFR 35.150 \(d\)\(3\)\(ii\)\]](#)
- 3) The schedule for taking the necessary steps to achieve compliance with Title II of the ADA. If the time period for achieving compliance is longer than one year, the plan should identify the interim steps that will be taken during each year of the transition period [\[28 CFR 35.150 \(d\)\(3\)\(iii\)\]](#)
- 4) The name of the official responsible for the plan's implementation. [\[28 CFR 35.150 \(d\)\(3\)\(iv\)\]](#)

The transition plan is a reaction to the findings of the ROW audits and input from advocacy groups.

The specific improvements required to make the City right-of-way accessible are listed in *Appendices A, B and C*. Each report contains a list of barriers and barrier removal actions. Removing barriers limiting access to high priority areas (serving local government offices and facilities, highly used retail, schools, or other basic necessities) or those which present

a safety hazard should be the City's first priority.

7.1 Phasing of Corrections

A phased implementation of the required corrections to remove physical barriers within the City's right-of-way is required and recommended. The City has limited funds and cannot immediately make all facilities fully accessible. Prior to setting priorities, baseline criteria needed to be established to develop a starting point for ranking the deficient infrastructure were identified.

Criteria to be considered included level of use, degree of danger posed, complaints or requests for repair received, and other factors. These factors can be grouped into two categories.

Contributing contextual factors account for use patterns and distribution in relation to city services, residential zones, and public services.

Physical Impedance factors include the actual physical characteristics of the specific right-of-way feature and the severity of the barrier to use. As noted in section 3.4, contextual factors are NOT included in the priorities given in the Appendices. These factors will be analyzed on a yearly basis as the City identifies the work scope for that year's improvements. Locations of City and other governmental facilities, commercial centers, and densities of residential development may change over time, and should be reevaluated to accommodate the current greatest need for improvements at time of implementation.

At the time of the development of this report, few public complaints had been received about City-owned facilities. Complaints were not used as criteria to determine the phasing of improvements for any particular area, though future complaints could be the basis for funding improvements.

7.2 Public Outreach

Public participation on the final contents of the Transition Plan, including setting of priorities and the phasing of improvements, is critical to the success of the endeavor and is required by law. A draft Transition Plan was made available on the City's website, Engineering Department, Clerk's Office, and Public Library for public review and comment. A public meeting of the Mishawaka Public Health and Safety Committee of the Common Council was held on February 12, 2013 at Mishawaka Fire Station # 4, 3000 East Harrison Road. A presentation about the project was made and open discussion followed, including questions and answers. The public comments were incorporated in the final report. The final Transition Plan was then submitted to the City for public readings and adoption at regular City Common Council meetings in June 2013.

In creating priorities, it is the City's intent to evaluate all areas of potential deficiency. The assignment of priorities is intended to facilitate public review and to address specific concerns of the local disabled community. It must be emphasized that it is the City's intention that all individuals with all types of disabilities be reasonably accommodated.

The timing of the improvements within each transition phase will be determined by the City based on their preferences, available budget, and criteria. In general, the required physical improvements to meet accessibility guidelines were split into three priority groups:

- High priority improvements
- Medium priority improvements
- Low priority improvements

7.3 Considerations for Barrier Removal

All barriers are not equal in the impact they have on persons with disabilities to have equal access to City facilities or programs. Following evaluation of all ROW facilities, a prioritization had to be done to identify a ranking system to utilize when determining which improvements

need to be considered first and those that could be implemented in subsequent years. The costs to remove barriers by priority detailed in *Appendices A, B and C*, assuming that standards and guidelines are not modified. Within a typical municipality budget, the cost of making these improvements within a specified time frame and with the current economy can be overwhelming. Due to the magnitude of estimated construction costs to modify these existing pedestrian facilities, it will be necessary for the city to make accessibility improvements on a yearly basis. Thus, rather than attempt to set a specific timeframe in which all improvements could be completed, the City will strive to include an amount ranging from \$250,000 - \$300,000 during the annual budget process. These funds will be dedicated to making improvements to pedestrian facilities located in high priority areas providing the greatest access benefit to buildings such as schools, government offices churches and other major public centers.

The number and size of these projects will largely be dependent on a number of economic factors and future changes to the ADA Accessibility Guidelines (ADAAG), the Proposed Accessibility Guidelines for Pedestrian Facilities within the Public Right of Way, or other unforeseen requirements that may necessitate additional improvements to City facilities.

Determination of yearly scope of improvements should include the physical barrier prioritization, consideration of contributing contextual factors and high traffic areas, as well as planned infrastructure improvements. In some instances, it may be advantageous to construct improvements at a location where adjacent ROW work has been deemed necessary (such as planned intersection or street improvements) rather than correct individual locations on their own. However, it is recommended that those items noted as safety hazards be addressed individually where needed for the safety of all citizens. Complaints received may also help determine the priorities of the improvements. If the City receives complaints about access at a particular location that is not slated for

upgrades for several years, they should adjust the Transition Plan to accommodate the implementation of improvements to be sooner or as necessary.

The City of Mishawaka has the right to modify the priorities based on funding levels and changes in City programs activities and services, to have flexibility in accommodating community requests and complaints. Interim resolutions, such as temporary signing for alternate routes or sites, and temporary repairs may be implemented at the City's discretion to handle existing insufficiencies or access complaints received. All costs noted in the *Appendices* are 2012 estimates and subject to change based on market conditions, economic conditions, inflation, material selection, etc.

Based on the self evaluation, a total of approximately \$22,693,357 in improvements would be required (2012 costs) to achieve accessibility at all City facilities within the ROW. Note that the cost of some improvements is not comprehensive due to lack of information (survey), utility relocation or potential land acquisition, etc. These costs do not include any costs associated with training of staff, staff time related to training or overseeing implementation, etc. Note that actual phasing, transitioning of improvements, etc. can be impacted by a number of factors that may be unknown currently, as well as economic conditions, grant opportunities, etc.

Any changes to the ADA guidelines or to the right-of-way itself after the evaluations were completed are not reflected in these basic cost estimates. Additionally, it is the City's responsibility, as required by the ADA mandate, to regularly update the Transition Plan based on the latest requirements of the ADA laws and to document constructed infrastructure that is brought up to current ADA standards. Finally, the evaluations performed for this report are not to design level detail and are intended to be used to give a framework to the Transition Plan. When the Transition Plan is approved and the planning stages are begun for the first improvements, a more detailed survey of each site should be performed and improvements

should be designed by licensed professionals that are compliant with ADA as well as all other applicable codes, including building and fire codes. At this time, costs are estimated but precise costs cannot be determined and the Transition Plan should be adjusted to reflect this knowledge.

7.4 Maintenance Activities and Recommendations

A key component to ensuring ROW facilities remain usable, whether they are fully compliant with PROWAG or not, is to perform required maintenance activities in a manner that does not reduce accessibility. This maintenance can be performed by adjacent property owners, contractors, or City staff. Examples of maintenance activities that may be required within the public ROW include:

- Vegetation – proper maintenance of grass, landscaping, shrubs, and trees adjacent to the PAR is vital to ensuring compliance with the standards. Over time, sod can grow over the sidewalk and not only reduce the width of the PAR to less than 48", but also prevent proper drainage. Taller vegetation can grow into the PAR, creating an obstruction and/or protrusion.
- Snow and Ice Removal – snow and ice accumulation along sidewalks, curb ramps, and on-street parking presents a barrier to many persons with disabilities and a potential safety hazard to all users. The prompt removal of snow for the full width of the sidewalk following a storm is vital to ensuring that pedestrians can use the sidewalk and not have to use the streets. Delays in removing the snow or not removing the full width of the sidewalk can significantly impact the ability of all users to utilize sidewalks. Not clearing accessible parking spaces and access aisles makes it extremely difficult for persons with disabilities to get from their vehicles to the PAR.

Another snow and ice removal concern is snow placement and plowing of streets. Particularly during large snow

accumulations, multiple passes along the streets are required by snow plows to keep the streets clear for vehicles, with snow typically plowed to the curb. These accumulations of snow often block sidewalks and curb ramps to the point that they are unusable by persons with disabilities.

- Obstructions and Protrusions – when utility poles, signs, and other objects are replaced, it is important to make sure that they are moved out of the PAR to the greatest extent possible and obstructions and protrusions are eventually eliminated. Items such as utility poles, hydrants, street signs, mailboxes, etc. can all be relocated as part of regular maintenance activities.
- Level Changes – displacement of surfaces from an adjacent surface creates trips hazards to all users. The causes of these level changes vary and short term fixes can be considered until such time as a sidewalk project is completed. Minor level variances can either be beveled or grinded level. More severe elevation changes may require something more extreme, such as temporary patching material being placed to remove a vertical level change.
- Temporary Signage – consideration could be given to putting temporary signage at PARs that could present significant barriers to persons with disabilities. These signs should be located as close to an

intersection as possible and identify an alternate route that does not have the same significant issues.

7.5 Plan Updates and Enforcement

Changes to the City of Mishawaka's policies as relate to ROW improvements should be drafted, implemented, and documented by the ADA Coordinator. These changes should have little cost of implementation, mainly consisting of the time to develop the language of the code and policy changes, and administrative costs. Plan updates should be made as changes occur. Improvements eliminating the deficiencies identified should be tracked to show progress in increasing accessibility within the community and to ensure the City is following through on the commitments made herein.

All improvements of pedestrian facilities completed will be documented annually on a sidewalk overlay within the city's GIS to enable a review of improved areas and to prioritize future work. The Transition Plan will be reviewed and updated periodically to ensure the City is continuing to improve the accessibility within their public right-of-way, and that it is current to properly serve areas of development.

8.0 ADA Tool Kit

8.1 Federal Accessibility Standards and Regulations

U.S. Department of Justice

The U.S. DOJ provides many free ADA materials including the ADA text. Printed materials may be ordered by calling the ADA Information Line [(800) 514-0301 (Voice) or (800) 514-0383 (TDD)]. Publications are available in standard print as well as large print, audiotape, Braille, and computer disk for people with disabilities. Documents, including the following publications, can also be downloaded from the DOJ website (www.ada.gov/).

Unless noted, the ADA publications have not been updated to reflect the recent revisions to the ADA regulations that took effect on March 15, 2011.

- *ADA Regulation for Title II*. This publication (http://www.ada.gov/regs2010/ADAREgs2010.htm#titleII_final_2010) describes Title II of the ADA, Pub. L. 101-336, which prohibits discrimination on the basis of disability by public entities. Title II of the ADA protects qualified individuals with disabilities from discrimination on the basis of disability in the services, programs, or activities of all state and local governments. This rule adopts the general prohibitions of discrimination established under Section 504, as well as the requirements for making programs accessible to individuals with disabilities and for providing equally effective communications. It also sets forth Standards for what constitutes discrimination on the basis of mental or physical disability, provides a definition of disability and qualified individual with a disability, and establishes a complaint mechanism for resolving allegations of discrimination.
- *Title II Technical Assistance Manual (1993) and Supplements*. This 56-page manual (www.ada.gov/taman2.html) explains in lay terms what state and local governments

must do to ensure that their services, programs, and activities are provided to the public in a nondiscriminatory manner. Many examples are provided for practical guidance.

- *Accessibility of State and Local Government Websites to People with Disabilities*. This is a 5-page publication providing guidance (www.ada.gov/websites2.htm) on making state and local government websites accessible

U.S. Access Board

The full texts of Federal laws and regulations that provide the guidelines for the design of accessible facilities and programs are available from the U.S. Access Board. Single copies of publications are available free and can be downloaded from the Access Board's website (<http://www.access-board.gov/pubs.htm>). In addition to regular print, publications are available in large print, disk, audiocassette, and Braille. Multiple copies of publications can be ordered by sending a request to pubs@access-board.gov. In addition to the guidelines, guidance material is also available to assist staff in understanding and implementing Federal accessibility guidelines.

The following publications are currently available from the U.S. Access Board.

Guidelines and Standards Used

Federal guidelines and standards are subject to periodic revision based on research findings and guidance from advisory committees. The City should have a regular practice of reviewing research materials posted to the U.S. Access Board's website and updating local guidelines and practices as new standards are adopted or existing standards are revised.

- *Proposed Accessibility Guidelines for Pedestrian Facilities within Public Right of Way* - On July 26th the U.S. Access Board released for public comment proposed guidelines for accessible public rights-of-way. The guidelines provide design criteria

for public streets and sidewalks, including pedestrian access routes, street crossings, curb ramps and blended transitions, on-street parking, street furniture, and other elements. The specifications comprehensively address access that accommodates all types of disabilities, including mobility and vision impairments, while taking into account conditions and constraints that may impact compliance, such as space limitations and terrain.

The guidelines, once finalized and implemented as standards, will apply to newly constructed or altered portions of public rights-of-way covered by the Americans with Disabilities Act (ADA). They will also apply to public rights-of-way built or altered with funding from the Federal government under the Architectural Barriers Act (ABA) and the Rehabilitation Act. Existing pedestrian networks not undergoing alteration will not be required to meet these requirements. The rights-of-way guidelines complement, and in some areas reference, the Board's ADA and ABA Accessibility Guidelines for buildings and facilities.

- **ADA Accessibility Guidelines (ADAAG).** This document (www.ada.gov/2010ADASTandards_index.htm) contains scoping and technical requirements for accessibility to buildings and facilities by individuals with disabilities under the ADA. These scoping and technical requirements are to be applied during the design, construction, and alteration of buildings and facilities covered by Titles II and III of the ADA to the extent required by regulations issued by Federal agencies, including the DOJ and the DOT, under the ADA.
- **State and Local Government Facilities: ADAAG Amendments.** The Access Board is issuing final guidelines to provide additional guidance to the DOJ and the DOT in establishing accessibility standards for new construction and alterations of state and local government facilities covered by Title II of the ADA. The guidelines will

ensure that newly constructed and altered state and local government facilities are readily accessible to and usable by individuals with disabilities in terms of architecture, design, and communication.

Guidance Material and Advisory Reports for Facilities

The following publications provide additional information on specific aspects of the above guidelines and standards for facilities. Employees are encouraged to refer to these publications to obtain more detailed and up-to-date information when evaluating and implementing accessibility improvements to facilities.

- **Using ADAAG Technical Bulletin.** This bulletin was developed to serve the specific needs of architects and other design professionals who must apply the ADAAG to new construction and alterations projects covered by Titles II and III of the ADA. It is also intended to clarify accessibility regulations generally, including those that apply to existing facilities covered by the ADA.
- **Ground and Floor Surfaces Technical Bulletin.** Over 27 million Americans report some difficulty in walking. Of these, eight million have a severe limitation and one-fifth of this population is elderly. Ambulatory persons with mobility impairments - especially those who use walking aids - are particularly at risk of slipping and falling even on level surfaces. The information in this bulletin is intended to provide designers with an understanding of the variables that affect the measurement and performance of materials specified for use on walking surfaces and to better describe the requirements of an accessible route.
- **Parking Technical Bulletin.** Accessible parking requires that sufficient space be provided alongside the vehicle so that persons using mobility aids, including wheelchairs, can transfer and maneuver to and from the vehicle. Accessible parking also involves the appropriate designation

and location of spaces and their connection to an accessible route. This bulletin was developed to provide more detailed information about the requirements for accessible parking including the Configuration, location, and quantities of accessible parking spaces. (www.access-board.gov/adaag/about/bulletins/parking.htm)

- *Detectable Warnings Update (March 2008).* Currently, the Access Board is in the process of developing guidelines on public rights-of-ways that, once finalized, will supplement the new ADAAG. This update is expected in 2012. While ADAAG covers various features common to public streets and sidewalks, such as curb ramps and crosswalks, further guidance is necessary to address conditions unique to public rights-of-way. Constraints posed by space limitations at sidewalks, roadway design practices, slope, and terrain raise valid questions on how and to what extent access can be achieved. Guidance on providing access for blind pedestrians at street crossings is also considered essential. This bulletin outlines the requirements of detectable warnings, a distinctive surface pattern of domes detectable by cane or underfoot, which are used to alert people with vision impairments of their approach to streets and hazardous drop-offs. The ADAAG require these warnings on the surface of curb ramps, which remove a tactile cue otherwise provided by curb faces, and at other areas where pedestrian ways blend with vehicular ways. They are also required along the edges of boarding platforms in transit facilities and the perimeter of reflecting pools. (www.access-board.gov/adaag/dws/update.htm)

8.2 National Resources for Accessibility

- *ADA Document Portal:* This website (<http://adata.org/ada-document-portal>) provides links to more than 7,400 documents on a wide range of ADA topics.

The ADA Document Portal is supported by the 10 ADA & IT Technical Assistance Centers.

- *DisabilityInfo.Gov:* A one-stop interagency portal for information on Federal programs, services, and resources for people with disabilities, their families, employers, service providers, and other community members.
- *National Center on Accessibility (NCA):* The Center (<http://ncaonline.org>) is a cooperative effort between the National Park Service (NPS) and Indiana University to provide information and technical assistance, primarily on recreation access. An example of the research activities of the NCA is the National Trails Surface Study. Initiated in 2005, this longitudinal study is primarily the result of questions that the National Center on Accessibility has, for many years and continues to receive from organizations, agencies and individuals who desire to make their trails accessible; are interested in an unobtrusive surface that blends and is friendly to the environment; and provides a quality trail experience for people with and without disabilities.
- *National Center on Physical Activity and Disability:* The Center (www.ncpad.org) provides information and resources on physical activity to help people with disabilities find ways to become more active and healthy. The Center also provides information on how to provide access to fitness centers, schools, recreation facilities, camps, and health and leisure services.
- *National Park Service:* NPS has many programs that address the issue of providing accessible recreation services to people with disabilities. These include Wilderness Accessibility for People with Disabilities (www.ncd.gov/publications/1992/December1992#8-1a) and Director's Order #42-Accessibility, which establishes the purpose and role of the NPS Accessibility Program (www.nps.gov/accessibility.htm), lists applicable laws, standards, and authorities,

implementation strategies, roles, and responsibilities. It also addresses NPS policies and provides links to additional information sources.

8.3 Specialized Resources

Community Groups, Organizations, Associations and Commissions

There are a large number of groups nationally, regionally, and within each state that provide specialized services, information, and advocacy for persons with all disabilities. A few are included below:

- *Ability Resources, Inc.:* Ability Resources Inc. (www.ability-resources.org/home.org) was founded in 1976. Their mission is to assist people with disabilities in attaining and maintaining their personal independence. One way this can be achieved is in the creation of an environment in which people with disabilities can exercise their rights to control and direct their own lives.
- *American Council of the Blind:* ACB (www.acb.org) is a national organization advocating on behalf of persons who are blind or have low vision. ACB also publishes *A Guide to Making Documents Accessible to People Who Are Blind or Visually Impaired*. ACB is located at 1155 15th St. NW, Suite 1004, Washington, DC 20005 (800.424.8666) or by email at info@acb.org.
- *American Association of People with Disabilities:* The American Association of People with Disabilities (www.aapd.com/) is the largest non-profit, non-partisan, cross-disability organization in the United States.
- *National Association of the Deaf:* NAD is a national consumer organization representing people who are deaf and hard of hearing. NAD provides information about standards for American Sign Language Interpreters and the Captioned Media Program on its website (www.nad.org).
- *National Federation of the Blind:* NFB is a national organization advocating on behalf of persons who are blind or have low vision. NFB provided online resources (www.nfb.org) for technology for the blind, including a technology resource list, a computer resource list, screen access technology, sources of large print software for computers, and sources of closed circuit TV (CCTV's).
- *National Organization on Disability:* The National Organization on Disability promotes the full and equal participation and contribution of America's 54 million men, women and children with disabilities in all aspects of life. NOD maintains an on-line directory of information and links including transportation-related resources (www.nod.org).
- *Paralyzed Veterans of America:* PVA is a national advocacy organization representing veterans. PVA's Sports and Recreation Program promotes a range of activities for people with disabilities, with special emphasis on activities that enhance lifetime health and fitness. PVA's website (www.pva.org/sports/sportsindex.htm) provides information on useful sports publications and a list of contacts.
- *United Spinal Association:* United Spinal Association is a membership organization serving individuals with spinal cord injuries or disease. Formerly known as the Eastern Paralyzed Veterans Association, the organization expanded its mission to serve people with spinal cord injuries or disease regardless of their age, gender, or veteran status. Information on accessibility training and consulting services and recreational opportunities for people with spinal cord injuries or disease is available on their website (www.unitedspinal.org).
- *World Institute on Disability:* WID is an international public policy center dedicated to carrying out research on disability issues and overcoming obstacles to independent living. WID maintains an on-line information and resource directory on technology, research, universal design, and the ADA. (www.wid.org/resources).
- *State of Indiana Division of Disability & Rehabilitative Services (DDRS):* www.in.gov/fssa/ddrs/2637.htm

- *State of Indiana Protection and Advocacy Services (IPAS)*: www.in.gov/ipas/
 - *Disability Resources, Inc., Guide to Disability Resources on the Internet – IN*: Disability Resources, inc. is a nonprofit 501(c)(3) organization established to promote and improve awareness, availability and accessibility of information that can help people with disabilities live, learn, love, work and play independently. www.disabilityresources.org/INDIANA.html
 - *Indiana Resource Center for Families with Special Needs (IN*SOURCE)*: The mission of IN*SOURCE is to provide parents, families, and service providers in Indiana the information and training necessary to assure effective educational programs and appropriate services for children and young adults with disabilities. IN*SOURCE employs nearly 13 staff at their central office in South Bend and 16 staff in other regional sites around the state. insource.org/index.htm
 - *ADA-Indiana*: The mission of ADA-Indiana is to serve as a statewide resource for promoting the implementation of the Americans with Disabilities Act in Indiana. www.adaindiana.org/
 - *Great Lakes ADA Center*: The Great Lakes ADA Center provides information, materials, technical assistance and training on the ADA. Topics addressed includes the non-discrimination requirements in employment, the obligations of state and local governments and business to ensure that programs, services and activities are readily accessible to and useable by people with disabilities. This includes access to the information technology used by these entities including but not limited to websites, software, kiosks, etc.
- information disseminated electronically. www.adagreatlakes.org/
- *Indiana Council on Independent Living*: Their mission is to effectively lead a statewide Independent Living Movement that empowers people with disabilities. www.icoil.org/index.html
 - *The Arc of Indiana*: The Arc of Indiana is committed to all people with developmental disabilities realizing their goals of learning, living, working and playing in the community. www.arcind.org/

The Great Lakes ADA Center's Accessible Technology Initiative encourages incorporation of accessible information technology in K-12 and post secondary school settings. Accessible Information Technology incorporates the principles of universal design so that people with a wide range of abilities and disabilities can access